

## **H2-international – e-Journal September 2015**

This is the second free issue of the **H2-international e-Journal**.

You will find lots of interesting news and information. Please feel free and forward this email to your colleagues and partners.

And if you liked what you read please [register](#) and you would will also get all the following issues of this [H2-international e-Journal](#).

[Subscribe](#) and stay tuned!

---

### **Content**

- [News](#) – Published in August & September 2015
  - [Timetable](#) – Events Worldwide – Trade Shows, Conferences, etc.
  - [Companies](#) – Global Manufacturer, Suppliers, Sellers
  - [Specials](#) – Free Entrance & Discounts
  - [Imprint & Social Media](#) – Stay in Contact
-

# How is it going on with NOW and NIP?

4. September 2015 by [Hydrogeit](#)



Dr. Klaus Bonhoff, NOW (l.), Dr. Sascha Kühn, eZelleron (r.), and Andy Fuchs, Toyota

For several months, speculation has been rife concerning the continuation of the *National Innovation Program for Hydrogen and Fuel Cell Technology (NIP)*, or a possible NIP 2.0. To ensure that the ideas on the configuration of the revised program aren't rejected before it has even got off the ground, it is worth taking a brief look back: what, exactly, were the contents and goals of the NIP 1.0?

Earlier this year, at the Hanover trade show, Dr. Klaus Bonhoff, Director of the *National Organization on Hydrogen and Fuel Cell Technology (NOW, see picture)*, explained that the *NIP* has always pursued one key goal: it is aligned to those applications in particular which have an environmentally relevant impact in terms of industrial policy and the energy sector. This means that it is primarily the techniques with a high potential which are supported, the development of which is in the socio-political interest and in which the economic risk cannot be carried by industry alone.

In addition to this area, which is of relevance to industrial policy, there is a second field in which small and medium-sized enterprises (SME) operate in particular. According to Bonhoff's comments, these companies benefit indirectly from the NIP funding by securing subcontracts from the industrial companies. He also pointed out that SMEs and start-ups benefit from the research environment which has been initiated with the funding, as start-ups and medium-sized companies can also access the know-how offered by the institutes (with the development of materials, for example).

When asked about the support options available to small companies such as eZelleron, NOW Director Bonhoff, sharing the stage with the Director of eZelleron Dr. Sascha Kühn in Hanover, responded that the state wasn't responsible for developing rechargeable fuel cell devices of this kind. He explained: "in terms of our political job, it is not up to our program to support the start-up scene. We pursue goals that are related to the energy industry. [...] I ultimately view the role of NOW to be in the coordination of public and private actors in the core tasks of H2 infrastructure construction, co-generation and electric mobility."

Regarding industrial policy, the key focus of the NIP 1.0 is on H2-mobility and the testing of new techniques in the scope of demonstration projects. Recently, there have been repeated calls for the continued use of funding plans of this kind following the end of the project. In this context, Bonhoff said that it was not, as a rule, the goal for demonstration projects to be ended immediately following their duration, but that sometimes it was simply unavoidable. A demonstration project primarily involves ascertaining the feasibility and gathering experience, not only at a technical level but also in terms of how something works at the economic level. On this basis, it isn't unusual for components to be put to alternative uses after the end of the project, or in certain cases, simply to be scrapped, explained Bonhoff.

With the CEP filling stations, some of which have already seen the duration of their projects extended, Bonhoff believes that a special situation has developed: since March 2015, with the company H2Mobility, an organization has existed in this area which enables the subsequent use of the filling stations, although not in every case. The future of the Clean Energy Partnership is currently uncertain. It would appear, however, that after the currently planned end to the project in 2016, it could be continued with a renewed focus.

Dr. Klaus Bonhoff expressed his confidence that the NIP 1.0 would be followed with an NIP 2.0. He made the following comments on the range of possible funding measures which was presented by the NOW committee some months ago: "the suggestion made by the industrial leaders is currently being discussed in the departments of the German federal government. We have received some positive initial feedback and the federal government appears to be very sympathetic to our cause."

Discussing the additional funding measures, the NOW Director said that he assumes that in terms of this range of topics, funding will be required for the area of research and development at a similar level as it is today, meaning an annual sum of 60 to 70 million Euros. Furthermore, there are also additional market activation measures, whatever these may involve, which could amount to several hundred million Euros for each part of the program over the years to come.

It was agreed in the coalition agreement that NOW GmbH would be continued, although the document does not mention NIP. Regarding this, Bonhoff said that the continuation of NOW only makes sense as long as NIP continues to exist – whatever its format.

# The NIP is to continue – initially until 2018

[3. September 2015](#) by [Hydrogeit](#)



*Prof. W. Tillmetz hands over to a younger team*

The sector is facing changes – this became clear during the general meeting of the National Innovation Program for Hydrogen and Fuel Cell Technology (NIP), which took place on June 1st and 2nd 2015 in Berlin. At the same time, however, there is continuity. There is to be a change in the NOW advisory council this summer, for example, as Prof. Dr. Werner Tillmetz will not be standing as Chairman again. Continuity is set to prevail for the project financing, though: Rainer Bomba, State Secretary in the Federal ministry of Transport and Digital Infrastructure (BMVI), agreed to the medium-term extension of the funding measures until 2018.

On the one hand, the general meeting proved to be of a retrospective nature – with an interim evaluation being made of the previous nine years, and almost 60 speakers reporting in detail about their current projects over the course of the two days. On the other hand, the event also served as a platform for discussing the future of the NIP. Accordingly, the configuration of the NIP 2.0 was also a key topic in the conference room at the Marriott Hotel at Potsdamer Platz in Berlin during the opening speeches.

The Chairman of the Advisory Council, Prof. Werner Tillmetz, clarified his views on the NIP in his welcoming speech: “the chances for the continuation look very good.” In his eagerly awaited presentation, Rainer Bomba confirmed that his ministry continues to believe in the future of hydrogen and fuel cell technology, and is working towards a continuation of the funding measures. He told the auditorium clearly: “despite all of the gloomy predictions, I can tell you that this technology will prevail.” And he continued by saying that “the NIP is a successful model. The funding has been put to full use – it is not like this with every project.”

Discussing the financing of a follow-up project to the NIP 1.0, Bomba said: “we have been very successful with the budgetary negotiations. The topic of NIP is secure for the years to come.” He also made it clear that it may be possible for yet more financial resources to be made available if – as with the NIP 1.0 – the industry confirms that it also wishes to carry out significant investments.

As Prof. Tillmetz reported, it has proven possible to secure funding from the supplementary budget for 2016, 2017 and 2018. He therefore confirmed that “the continuation of the NIP is anchored in the federal budget.” He went on to say that: “things are going to plan, things are going very well.” Bomba specified that a total of 161 million Euros are also available in addition to the current NIP for the market activation: 25 million for 2016, 50 million for 2017 and 86 million Euros for 2018. According to his comments, this will mean that the previous and approaching funding programs will overlap, which will bring a sense of continuity to the sector. He also referred to additional funding projects which are being initiated by the BMUB, the BMBF and by individual federal states.

The State Secretary also said that “we have succeeded in developing new strategic focal points from the current configuration of the program and to implement them. This flexibility is possible because the worlds of politics, industry and science are coordinating their work closely via the NOW interfaces.” Contrary to his impatient comments in recent years, in which he repeatedly requested industry to finally deliver the goods, this time he said he is now thinking in terms of decades rather than weeks. He said: “we have to deal with different time scales in this area.”

When asked by *H2-international* about how long the market launch phase should last, Bonhoff and Tillmetz explained that the market launch did not have to be completed after three years. According to the strategic paper from the NOW advisory council, ten years have been calculated.

Uwe Beckmeyer, Parliamentary State Secretary at the German Federal Ministry for Economic Affairs and Energy (BMWi) explained: “the NIP is a special program. [...] I am very confident that it will remain part of a further strategy.” The BMWi is yet to have made a definitive statement, however. Since the topics are already anchored in the *6th Energy Research Program*, it is now a question of “how” and “how much” rather than “if”.

Dr. Klaus Bonhoff, the Director of NOW GmbH, drew a largely positive interim assessment during his speech. He reported that it had been possible to develop a sector which including supplier companies, now consists of around 500 industrial companies. Foreign investors have been attracted and strategic alliances have developed. In addition to this, the first products are on the market and renewable energy in the form of CO<sub>2</sub>-free hydrogen is now on sale. He said: “today we are at the start of the market launch [...]. We can’t let up now.”

When asked about his personal future by *H2-international*, Prof. Tillmetz explained that a new appointment was already on the agenda for the next meeting of the Advisory Council. He has explained that he would like to continue on the Advisory Council but that he wants to hand the position of Chairman “over to a new pair of hands with NIP 2.” “It is now time for the younger generation,” explained Tillmetz. He

didn't name any names, however, and only said that his successor would be "one of his colleagues."

## BMWi starts incentive program for market launch

[3. September 2015](#) by [Hydrogeit](#)



In May 2015, the German Federal Ministry for Economic Affairs and Energy (BMWi) presented the long-awaited funding instrument for the market launch of fuel cell heating devices. As announced by Minister of Economic Affairs Sigmar Gabriel, the market launch is to be supported via the so-called *Energy Efficiency Incentive Program*. The program is part of the *National Action Plan on Energy Efficiency (NAPE)*, which was passed by the German federal government at the end of 2014. With other projects, it aims to contribute to a big improvement in the level of effectiveness in the construction sector. The package of measures has an annual funding volume of 165 million Euros.

Federal Minister of Economic Affairs Sigmar Gabriel described the *Energy Efficiency Incentive Program* as being an excellent addition to the existing CO2 building renovation program and market incentive program in the heating market. He also described it as being "a sensible alternative to the regrettable failure of the tax incentives," and one which is attracting additional investment, creating jobs in Germany, and reducing dependency on fossil fuels.

Gabriel is hoping that the introduction of this program will create new impulses for the "heating revolution in the boiler room". Genuine impulses for innovation and investment are to be achieved with the grants that have been planned for the market launch of fuel cell heating systems. In this context, over the long term, the initially high investment costs of FC heating devices are to be made competitive with grant funding. The following rule applies: the older and/or more inefficient the old heating

system is, and the more efficient the new one is, the higher the funding will be when the device is replaced. In addition to this, consulting measures are to be offered and the existing heating technology checked in order to gradually remove inefficient units from cellars.

### **Climate neutrality**

The long-term goal is to achieve a largely climate-neutral stock of buildings by the year 2050, as in Germany, almost 40 percent of energy is consumed in the household energy sector – particularly for the purpose of heating.

The *Energy Efficiency Incentive Program* has replaced the previously planned tax incentive measures in the area of energy-based buildings renovation. Originally, the federal government had already planned to support the conversion work in the area of the energy-based buildings renovation through tax benefits in 2011. The goal was for homeowners who took specific steps to save energy to be rewarded. On this basis, for instance, the replacement of old windows and boilers as well as an improved level of thermal insulation were planned to be encouraged by allowing homeowners to offset the full investment costs from tax. But in 2012, despite a drawn-out process of mediation, the governing coalition was not able to agree to a common approach. By early 2015, nothing had been agreed in the coalition committee, although eventually, only a 10-percent solution had been discussed which envisaged one percent of the investment costs being offset against tax annually over the course of ten years. Subsequent to revisions, this program was ultimately agreed at the start of May 2015.

With the *National Plan of Action on Energy Efficiency* at the start of December 2014, the federal government presented a range of measures for increasing energy efficiency in buildings – at the same time as the decision on the first Progress Report on the Energy Transition as well as the Climate Action Program 2020. With the NAPE, Gabriel wants to make “energy efficiency the second pillar of the energy transition”. A BMWi report also said: “its most important elements are the proposal to introduce a tax incentive for energy-based building renovations, the enhancement of the CO<sub>2</sub> building renovation program and competitive tendering for energy saving projects with a planned funding volume running into the three-figure millions per year.” Approximately 1 bn. Euros per year are intended for these projects by 2019.

The natural gas and liquid gas sector has welcomed the introduction of the new program. *Zukunft Erdgas* described the 165 million Euros that is planned for the FC sector as being a “blessing for the market launch of fuel cells”. Dr. Timm Kehler, the Chairman of *Zukunft Erdgas*, said: “it is important that in addition to gas-driven heat pumps, highly efficient fuel cell heating systems will also receive especial support, and that incentives are also created for the replacement of inefficient systems. High-tech heating systems of this kind produce both electricity and heat in buildings, and make consumers more independent. We have been waiting for this signal from the world of politics for a long time.”

It is, however, still unclear as to when exactly this program is to take effect. According to the latest speculation, it is unlikely to take place before 2016.

Furthermore, at the end of December 2014, the Federal Ministry for Economic Affairs and Energy announced that in the scope of the *6th Energy Research Program*, the

funding of research and development in the area of hydrogen and fuel cells as well as electrolysis and storage systems is to be continued. The Ministry's official comments were as follows: "in the future, the funding of research in the fields of energy efficiency and renewable energies along the entire value-added chain (provision/conversion, transport/distribution/storage, use) will allow for a stronger focus to be made on technological interfaces and system-spanning contexts."

The possible areas of application were not set out in the announcement in the *Federal Gazette (BAnz AT 30.12.2014 B1)*, but range from mobile motor vehicles to the provision of stationary household energy through to special applications, such as self-sufficient off-grid operations and interruption-free supply of power. Numerous topics in the field of H<sub>2</sub> and FC technology are mentioned as qualifying for funding, from components for PEM, solid oxide and alkaline fuel cells and electrolyzers as well as tanks, test stands and energy supply systems. The starting point for enquiries remains PtJ (project implementing organization Jülich) for all topics. The coordination is taking place – as in the past – via NOW.

A representative of the Ministry made the following comments to *HZwei* regarding the level of the financial resources: "the funding announcement did not mention any figures. In recent years, the funding provided by the BMWi for the area of hydrogen/fuel cells has consistently exceeded 20 million Euros. In the current federal budget, the figures for energy research are pointing upwards."

## The provision of funding to fuel cells in CHP units

[2. September 2015](#) by [Hydrogeit](#)



*Panasonic Vitalor*



In March 2015, the German Federal Ministry for Transport and Digital Infrastructure (BMVI) introduced a new funding regulation: “Fuel cells for highly efficient combined heat and power units”. These FC-CHP guidelines aim to ensure the smooth transition of fuel cell-based combined heat and power technology from the research and development stage (R&D) to commercialization over the short and medium term. On this basis, the BMVI awards investment grants to fuel cell CHP devices in single and multi-family dwellings as well as in industrial and commercial properties which have an electrical output of up to 20kW. Playing a leading role here are the *National Organization for Hydrogen and Fuel Cell Technology (NOW)* and the project implementing organization Jülich (PtJ).

The fuel cell CHP guidelines are designed for companies which want to launch fuel cell-operated CHP devices in the market. They are therefore oriented towards multipliers (energy providers, public utilities providers, intermediaries) that install at least five units. The manufacturers of the devices and the components themselves are not included.

The funding measure forms part of the *National Innovation Program for Hydrogen and Fuel Cell Technology (NIP)* which is to continue until the end of 2016. Accordingly, this funding option is temporally limited until the end of 2016. It has been possible to submit applications since March 2015. If these arrive after the 31st May 2015, however, it is not possible to guarantee that they will actually be taken into consideration. The money for this measure comes from the NIP, although this project was originally intended to provide funding for R&D and demonstration projects. Since the BMVI recently created a new investment title within the NIP but didn't have any of its own financial resources, R&D funding from other areas can also be moved into this title and put to use there.

For each device, a fixed basic level of funding in sum total of 1,600 Euros and a performance-related sum total are paid (see table). On this basis, for a 1-kW unit, companies receive 9,600 Euros ( $€ 1,600 + 1 \times € 8,000$ ), while for a 0.3-kW unit, they get 4,000 Euros ( $€ 1,600 + 0.3 \times € 8,000$ ).

<u>Min. output [kWel]</u>	<u>Max. output [kWel]</u>	<u>Funding per kWel [€]</u>
0.25	1	8,000
1	3	2,000
3	5	1,000

The funding can, however, only total a maximum of 45% of the extra investment costs, in the context of which the price difference between the new FC units and conventional devices in a comparable performance class serves as the computational reference value. Prototypes do not receive any funding. In addition to this, the funding is not cumulative with other measures with the exception of remuneration claims according to the CHP law.

The goal of these guidelines is to support the pending market launch in order to reduce the investment costs of fuel cell systems with economies of scale. To this end, NOW has set up a special homepage: [www.brennstoffzellen-kwk.de](http://www.brennstoffzellen-kwk.de). This also includes the BAFA list with all of the models which qualify for funding. The *Inhouse5000* is not yet included, since according to the statement of NOW Director Dr. Klaus Bonhoff, it is not yet sufficiently developed/certified. Riesaer

Brennstoffzellentechnik GmbH confirmed that they were working on this when asked, however.

### **BMUB – BMVI – BMWi**

Expressed in general terms, it is possible to say that the different programs in the different government ministries can be understood in terms of the BMUB making use of proven funding instruments to guarantee basic funding to the end customers of the FC heating devices in the short term. Although it is not specifically concerned with the stationary supply of energy by definition, the BMVI is providing NIP funding to multipliers over the medium term for the market entry of FC-CHP units (see above). The German Federal Ministry of Economics and Technology (BMW) is orienting itself to energy providers over the long term.

## **Federal Ministry for the Environment improves CHP support**

26. August 2015 by [Hydrogeit](#)



*“Sales talk” during the Hanover trade show (Source: SOLIDpower)*

At the end of 2014 the German Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear Safety (BMUB) revised the mini CHP (combined heat and power) impulse program. It has now been in force since 1st January 2015, and has brought with it a range of new developments for FC heating equipment in particular, as fuel cells are more effective than conventional heating elements, a factor that is henceforth receiving funding. With this revision, the BMUB has used an established funding instrument – the mini CHP impulse program – in order to incorporate highly efficient equipment in building inventories and to therefore increase the levels of overall efficiency, especially in the heating segment.

Since April 2012, small combined heat and power plants with an electrical output of up to 20kW have been in receipt of funding from the German federal government. This is because mini CHP plants are highly efficient but they are also very expensive, which is why a special impulse is required for their sale to ensure that this technology

is accepted by the end customers. To this end, the BMUB initiated the mini CHP impulse program. The program is being implemented by the Federal Office of Economics and Export Control (BAFA), which is where the appropriate applications are submitted.

The revision of the impulse program, which was published on 12th December 2014, provides for an increased level of basic funding, the introduction of bonus subsidies as well as simplified technical requirements. In specific terms, since the start of the year, the new arrangements have envisaged mini CHP plants with up to 20 kilowatts of electricity (kWel) to receive a higher level of basic funding in the future: It is possible to apply for 1,900 Euros in support from the BAFA for up to 1kWel. Furthermore, there is the newly introduced bonus subsidy (electrical efficiency bonus) for particularly energy-efficient systems ( $\eta_{el} > 31\%$ ), which totals 60% of the basic funding. An additional bonus funding for exceptionally thermally efficient systems (the thermal efficiency bonus) is also able to provide an additional 25% of the basic funding. On this basis, the end customer is able to access approximately 3,500 Euros as an investment allowance. This only applies to current buildings, however, and not to new buildings.

#### **Collaboration with government ministries**

The prices of FC heating devices currently remain so high that they deter potential customers. The German federal government has therefore recently passed measures which are partially coordinated by the [Ministry of Economic Affairs](#), partially by the [Ministry of the Environment](#) (see above), and partially by the [Ministry of Transport](#) (please see also the following articles).

## **Free Tickets for eCarTec and WES**

[19. August 2015](#) by [Hydrogeit](#)

H2-international is offering all readers free tickets to both fairs: the [World of Energy Solutions](#) WES in Stuttgart (October, 12th to 14th 2015) and the [eCarTec](#) in Munich (October, 20th to 22th 2015). If you are interested please contact [H2-international](#).

# Will China be a pioneer in FC mobility?

[13. August 2015](#) by [Hydrogeit](#)



*The Qin is a bestseller in China (Source: BYD)*

Considering the current fuel cell activities in China, it can be concluded with some certainty that over the course of years to come, the People's Republic will not suddenly become a pioneer in the field of FC mobility. At the same time, however, in the area of research and development and on the governmental side, the country is now doing some initial groundwork with the use of renewable energy in the area of energy supply. Hydrogen and fuel cell technologies are playing an important role here.

The current developments will come as no surprise to anyone who has visited China in recent years and has seen with their own eyes how quickly the country is developing. China's major cities are growing at a very rapid pace, drawing in ever increasing numbers of Chinese citizens who are seeking education, work and prosperity. Construction work is everywhere to be seen: roads, bridges, industrial estates, office parks and giant apartment buildings by the dozen, frequently packed into a few square kilometers. Millions of Chinese citizens need to be supplied with energy and mobility, which has seen the consumption of energy generated using fossil fuels grow to such an extent that the impact on the environment in the large cities is increasingly evident. This is especially true of the air quality: smog and an ever-present haze which doesn't let any sunlight through and which makes it almost impossible for people to breathe the air.

The poor air quality in the cities is largely because most of China's electricity continues to be generated in coal-fired power stations. Believe it or not, coal accounts for 93 percent of the energy generated using fossil fuels. In this context, huge quantities of carbon dioxide are being released which account for 80 percent of all the CO<sub>2</sub> emissions in China, and with 10 billion tons, China is now responsible for 30 percent of the world's emissions of CO<sub>2</sub>. By way of comparison, in Europe the current figure is approximately 4 billion tons [1]. In 2013, 4,000 billion kilowatt hours of electricity were generated with coal, equivalent to around 80 percent of the total demand for electricity in China (5,245 billion kWh). For this reason, the use of

renewable energy, especially solar and wind power, is playing an increasingly important role.

China is now the biggest manufacturer of solar cells and solar accessories in the world. In 2014, however, the photovoltaic capacity in the country only amounted to 28 gigawatts. By way of comparison, according to the European Photovoltaic Industry Association, in Europe, 70 gigawatts of electricity were connected to the power grid in the year 2012. This is 69 percent of the world's photovoltaic capacity. Wind energy currently only accounts for three percent of the electricity produced in China. This is equivalent to 180 bn. kilowatt hours with an installed capacity of 115 gigawatts. By way of comparison, the installed wind capacity in Europe totals approximately 129GW, of which 121GM are onshore and around 8GW are offshore.

It isn't just coal: traffic is also responsible for a major share of the air pollution in China. In 2014, 140 million vehicles were registered in China, the vast majority of which had conventional internal combustion engines. China currently manufactures 30 million vehicles per year. Half of the oil consumed in China is used in the transportation sector, with an accordant impact on CO<sub>2</sub> emissions. Since the majority of the oil has to be imported (the import ratio totals 60%) and the impact on the environment has been so huge, the government has ordered that from 2020 onwards, new vehicles may only consume a maximum of five liters of fuel per 100 kilometers. For this reason, increasing numbers of electric vehicles can now be seen on China's roads – especially in the cities. With 55,000 electric vehicles sold, China is already the second biggest market for E-vehicles.

With 15,000 unit sales, the plug-in hybrid Qin which is manufactured by BYD is the fourth most widely sold E-vehicle in the world. All of the forecasts point to China becoming the biggest market in the world for electric vehicles this year. In 2015, more than 27,000 vehicles have been manufactured, with over 26,000 units having been sold in the first quarter. These are primarily battery-powered electric vehicles and plug-in hybrids. So far, electric vehicles powered by fuel cells have only been built and operated in the scope of demonstration projects. These demonstration projects are set to continue over the years to come, however.

At the Olympic Games in 2008, 23 fuel cell buses hit the roads of Beijing. Two years later at the World Expo in Shanghai 2010, 173 fuel cell cars transported visitors and guests around the exhibition site over the course of six months. To supply the vehicles with fuel, four hydrogen filling stations were installed which were supplemented with several mobile filling systems, all with 350bar. From 2015 to 2019, the development and operation of a new demonstration fleet with 100 buses has been planned. They will be operated in at least four cities – with Beijing, Shanghai, Zhengzhou (Province of Henan) and Foshan (Province of Guandong) being confirmed participants.

The use of E-cars is expressly encouraged and the topic of electric mobility is receiving considerable support from the central government. With a range of different rules and regulations, the Chinese government is intervening more strongly in terms of industrial policy and on the consumer side. In this context, in November 2014, the Chinese government launched its "Energy Development Strategy Action Plan" which is to continue until 2020. This sets the primary energy consumption for this period as being 4.8 bn. tons of coal equivalent. At the same time, the proportion of renewable

energy in the overall primary energy mix is to increase to 15 percent by the year 2020. Furthermore, 20 key areas for energy innovations have also been defined in this action plan. Hydrogen and fuel cell technologies are playing an important role in this area.

In April 2015, the “Financial Support Policy for New Energy Vehicles 2016–2020” was published jointly by the following ministries: MoF (Finance), MoST (Science), MIIT (Industry and Information), and also the NDRC (National Development and Reform Commission). These funding guidelines specify that in the years 2017 and 2018, the subsidies for battery-powered and plug-in hybrid vehicles will be reduced by 20 percent, and in the years 2019 to 2020, by a further 40 percent– in both cases compared with the year 2016. Vehicles that run with fuel cells are exempt from this regulation, and the funding standards for these types of “New Energy Vehicles” will remain unchanged.

Funding standards for electric vehicles to be powered with fuel cells:

<u>Type of vehicle</u>	<u>Sum of finding per unit</u>
Cars	28,900 Euros
Light cars, vans	43,300 Euros
Medium-sized/large buses, medium-sized/large commercial vehicles	72,100 Euros

Furthermore, the tax exemption regulation for “New Energy Vehicles” which has been valid since 2012 has also been renewed by the MOF, the MIIT and the tax authorities. According to this regulation, battery-powered cars, plug-in hybrids and electric vehicles powered with fuel cells are tax-free. To increase the number of buses in use in the urban transportation systems, the fuel subsidies offered to major cities are to be gradually reduced until 2019. At the moment, the central government pays for the fuel used in the buses that operate in the public transport networks in the large cities.

The worlds of science, industry and politics are working hard to develop the international collaboration in the area of hydrogen and fuel cell technologies in particular. In this regard, China was recently the host of the 32nd Steering Committee Meeting of the IPHE (International Partnership for Hydrogen and Fuel Cells in the Economy). In Wuhan, a metropolis situated in central China, representatives of the 18 member countries convened to discuss the latest developments in the area of H2 & FC over the course of a range of different events.

*Literature: Trends in Global CO2-Emissions 2014 Report, PBL Netherlands Environmental Assessment Agency & IES*

*Author: Alexandra Huss*

# 3rd National Electric Mobility Conference

[12. August 2015](#) by [Hydrogeit](#)



*Chancellor of Germany Dr. Angela Merkel*

“Germany will not be able to circumvent the provision of further funding.” This decisive pronouncement from Chancellor Dr. Angela Merkel reflects the dilemma in which the German federal government currently finds itself: for budgetary reasons and due to frequently repeated refusals, direct funding in the form of a buyer’s premium has been ruled out – and yet without funding, it is unlikely that the self-defined goal of one million electric vehicles will be achieved by 2020. Merkel’s words were therefore open and vague: “people are expecting us to provide an answer this year. We will do our best.”

The *3rd National Electric Mobility Conference* (NKE) which took place on 15th and 16th June 2015 at the Berlin Congress Center (bcc) was a rendezvous for the leading representatives of the German auto industry. They were all there: the chairmen of the major automakers as well as the directors of the supply companies along with many lobbyists – all of whom were hoping to make direct contact with the political decision-makers.

Outside the bcc, six of the 19 models currently available from German auto manufacturers were on display, while inside, “shop windows” and “beacons” advertised electric mobility. The most important event, however, was the back-room meeting on the afternoon of the first day which was attended by Chancellor Merkel. After a brief photo opportunity with the executives from 30 DAX companies (with Merkel joining Kagermann, NPE; Zetsche, Daimler; Winterkorn, VW; Wissmann, VDA), the leading lights of politics and business made their way into a private suite where they discussed both the current position and future of E-mobility behind closed doors.

In her subsequent speech, the Chancellor told the packed conference room in clear terms that she would be leaving the event “having learned a lot of new things” during her meeting with the business leaders. She also expressed her view that further discussions would be necessary on additional funding measures, albeit without going

into any more detail. She made it clear, however, that “the 95g of CO2 over 100km can only be achieved with electric mobility”.

By the end of 2015, the number of electric models manufactured by German auto companies is set to reach 29. So far, approximately 36,000 electric vehicles have been registered in Germany.

Federal Minister for Economic Affairs Sigmar Gabriel announced his intention to start an initiative to develop European cell production in the scope of the growth package announced by the President of the European Commission, Jean-Claude Juncker. And Federal Minister for Research Johanna Wanka explained that in this regard, in addition to the Batterie 2020 Research Program which has received 60 million Euros in funding, she wishes to initiate the joint *GIGA-LIB* project, which will involve the promotion of battery cell production in Germany. In this context, Daimler has been on the receiving end of a substantial level of criticism for its decision to close its battery cell factory again. Dr. Dieter Zetsche tried to explain that with its duty to respond to its shareholders, his company was not able to act in the same way as a start-up like Tesla, which had accepted losses over the course of many years.

Gabriel also proposed starting an initiative to increase the proportion of E-vehicles in use in the German Mail Service (Deutsche Post) and in hospital outpatient services, complimenting the previously announced tax incentives. He made the following comments: “it is surely possible for the federal government, state governments and municipalities to work together here. We need a shared public procurement program, not necessarily to achieve an immediate figure of 50%, but to make a start with 10 to 20%.” He also said: “we will have to come up with a plan so that we can gradually achieve our goal – but it won’t be easy.” He also made the following comments on the topic of eRoaming: “I am pleased that the industry is set to conclude a cooperation agreement so that customers can charge their vehicles throughout Germany and settle the electricity that they have purchased from different providers.”

Making reference to the criticism of the insufficient charging infrastructure in Germany, Federal Transport Minister Alexander Dobrindt announced his intention to equip all 400 freeway rest areas in Germany with charging stations. He made the following comments: “we want to bring about a stronger degree of dynamism so that electric mobility isn’t just something special, but the general standard.” He underlined his claim by mentioning that due to the support provided by State Secretary Rainer Bomba, in his ministry, the proportion of E-autos is set to achieve 50% next year.



# Rainer Seele leads OMV

[10. August 2015](#) by [Hydrogeit](#)



*Dr. Rainer Seele*

Since 1st July 2015, Dr. Rainer Seele has been the new Board Chairman and Managing Director of the incorporated company OMV. As reported by the supervisory board of OMV AG, Seele was given a three-year contract with the option of extension for another two years. Seele, who is married and the father of three grown-up children, is following in the footsteps of Gerhard Roiss, who – as reported by the Austrian gas and oil company – left the company on 30th June 2015 on the basis of mutual agreement.

Rainer Seele is a graduate of chemistry, and, as Chairman of the Board, has been the Managing Director of the Kassel-based company Wintershall Holding GmbH, a 100% subsidiary of BASF, since 2009, where he previously sat on the board as Director for Gas Trading from 2002 onwards. Rudolf Kemler, Chairman of the OMV supervisory board, explained: “In terms of his professional profile, Rainer Seele is the ideal candidate, as he offers an exacting expertise-based profile and many years of international management experience. [...] In terms of today’s exceptionally tough business environment, being able to keep the company on a stable path is now our most important goal.”

## ASUE and DVGW to cooperate

[10. August 2015](#) by [Hydrogeit](#)

To gain further influence in the different interests in the energy sector, two associations in the gas industry have entered into a strategic cooperation: the Deutsche Verein des Gas- und Wasserfaches (German Gas and Water Association /

DVGW) and the Arbeitsgemeinschaft für sparsamen und umweltfreundlichen Energieverbrauch (Working Group for Energy Conservation and Environmentally Friendly Energy Use / ASUE). On 29th May 2015, the Chairman of the Board of the DVGW, Prof. Dr. Gerald Linke, and President of the ASUE, Dr. Ludwig Möhring, signed an appropriate agreement in Berlin. Its primary goals are closer collaboration in the completion of economic research in the energy sector as well as attaining a stronger weighting for the energy carrier of natural gas. Linke made the following comment: “with its expertise in the transfer of knowledge, the ASUE is the ideal future partner for us.” Möhring explained: “the key to the success of the energy transition is not in the development of renewable energy alone, but ultimately in the climate-efficient and costs-optimized integration of technologies and renewable energies that are based on natural gas.”

---

## Timetable

- October 11th to 14th 2015, **World Hydrogen Technologies Convention**, Sydney, Australia, [www.whtc2015.com](http://www.whtc2015.com)
  - October 12th 2015, **green2market**, Stuttgart, Germany, [www.green2market.com](http://www.green2market.com)
  - October 12th to 14th 2015, **World of Energy Solutions**, Stuttgart, Germany, [www.world-of-energy-solutions.de](http://www.world-of-energy-solutions.de)
  - October 19th to 21st 2015, **International Conference on Hydrogen Safety – HySafe**, Yokohama, Japan, [www.ichs2015.com](http://www.ichs2015.com)
  - October 20th to 22th 2015, **eCarTec**, Munich, Germany, [www.ecartec.com](http://www.ecartec.com)
  - November 17th to 20th 2015, **Zing Hydrogen & Fuel Cells Conference**, Cancun, Mexico, [www.zingconferences.com](http://www.zingconferences.com)
  - June 13th to 16th 2016, **World Hydrogen Energy Conference 2016**, Zaragoza, Spain, [www.whec2016.com](http://www.whec2016.com)
-

## Companies

### Fuel Cells



- Fuel Cells · Power Systems  
**Proton Motor Fuel Cell GmbH**, Benzstrasse 7, D – 82178 Puchheim, Tel. +49-(0)89-1276265-0, Fax -99, [www.proton-motor.de](http://www.proton-motor.de)

### Fueling



- Busch Clean Air S.A.  
Chemin des Grandes-Vies 54, 2900 Porrentruy / Switzerland, Tel. +41 (0)32-46589-60, Fax -79, [info@buschcleanair.com](mailto:info@buschcleanair.com), [www.buschcleanair.com](http://www.buschcleanair.com)



- Gardner Denver Thomas GmbH, [www.gd-thomas.com](http://www.gd-thomas.com)

### Electrolyzers



- AREVA H2Gen, Maarweg 137, D – 50825 Cologne, Tel. +49-(0)221-88824488, [www.arevah2gen.com](http://www.arevah2gen.com)
- **Diamond Lite S.A.**, Rheineckerstr. 12, PF 9, CH – 9425 Thal, Tel. +41-(0)71-880020-0, Fax -1, [diamondlite@diamondlite.com](mailto:diamondlite@diamondlite.com), [www.diamondlite.com](http://www.diamondlite.com)
- **H-TEC SYSTEMS GmbH**, PEM-Electrolyzers, Maria-Goeppert-Str. 9a, D – 23562 Lübeck, Tel. +49-(0)451-39941-0, Fax -799, [info@h-tec-systems.com](mailto:info@h-tec-systems.com), [www.h-tec.com](http://www.h-tec.com)
- **Heliocentris Industry GmbH**, Tel. +49-(0)30-340601-500, Fax -599, [sales@heliocentris.com](mailto:sales@heliocentris.com), [www.heliocentris.com](http://www.heliocentris.com)

# HYDROGENICS

SHIFT POWER | ENERGIZE YOUR WORLD

- Hydrogenics GmbH, Am Wiesenbusch 2, D – 45966 Gladbeck, Tel. +49-(0)2043-944 141, Fax -6, [hydrogensales@hydrogenics.com](mailto:hydrogensales@hydrogenics.com), [www.hydrogenics.com](http://www.hydrogenics.com)
- **ITM Power GmbH**, Energy Storage – Clean Fuel, Hegewiese 4C, D – 61389 Schmitten, Tel. +49-(0)6084-950012, [www.itm-power.com](http://www.itm-power.com)
- **McPhy Energy Deutschland GmbH**, Oberer Mainkai 1, D – 97070 Würzburg, Tel. +49-(0)931-35987-244, [www.mcphy.com](http://www.mcphy.com)

## Measurement



- **Greenlight Innovation Corp. Canada**, [tlutz@greenlighteurope.com](mailto:tlutz@greenlighteurope.com), [www.greenlightinnovation.com](http://www.greenlightinnovation.com)

## Reformer

- **WS Reformer GmbH**, Dornierstraße 14, D – 71272 Renningen, Tel. +49-(0)7159-163242, Fax -2738, [www.wsreformer.com](http://www.wsreformer.com)

## Storage

- **GKN Powder Metallurgy**, GKN Sinter Metals, PO Box 55, Ipsley House, Redditch B98 0TL, Worcestershire, UK , [www.gkn.com/sintermetals](http://www.gkn.com/sintermetals)

## Suppliers



- **Borit NV**, Bipolar Plates and Interconnects, Lammerdries 18d, BE – 2440 Geel, Belgium, [joachim.kroemer@borit.be](mailto:joachim.kroemer@borit.be), [www.borit.be](http://www.borit.be)

# burkert

- **FLUID CONTROL SYSTEMS**

**Bürkert Werke GmbH**, Mass Flow Controllers, Christian-Bürkert-Str. 13-17, D – 74653 Ingelfingen, Tel. +49-(0)7940-10-0, Fax -91204, [www.burkert.com](http://www.burkert.com)

- **Heraeus**

**Heraeus Precious Metals GmbH & Co. KG**, Electronic Materials Division, Business Unit Circuits & Components, Heraeusstr. 12-14, D – 63450 Hanau, Tel. +49-(0)6181-35-5466, Fax -7850, [www.heraeus-circuits-components.com](http://www.heraeus-circuits-components.com)



HYDROGEN AND INFORMATICS  
INSTITUTE OF APPLIED TECHNOLOGIES

- **HIAT gGmbH**, Schwerin, Germany, CCMs / MEAs / GDEs for PEFC, DMFC & PEM-Electrolysis, [www.hiat.de](http://www.hiat.de)




VERSORGUNGSTECHNIK

- **Theisen GmbH & Co. KG**, GH2 & LH2, [info@theisen-gmbh.de](mailto:info@theisen-gmbh.de), [www.theisen-gmbh.de](http://www.theisen-gmbh.de)



**CRYOGENICS**

- **Member of the  Group**  
**WEKA AG**, Schuerlistr. 8, CH – 8344 Baeretswil, Switzerland, Tel. +41-(0)43-833434-3, Fax -9, [info@weka-ag.ch](mailto:info@weka-ag.ch), [www.weka-ag.ch](http://www.weka-ag.ch)

Do you also want to be part of this **List of Companies on H2-international**? Such an entry on the website and also in the newsletters costs only US-\$ 135 (120 Euro).

Please let me know if you want to book this entry and you will be part of every newsletter twelve times a year.

see: [www.h2-international.com/companies/](http://www.h2-international.com/companies/)

---

## Specials

- **Free tickets** for the trade show [World of Energy Solutions](#) from October 12th to 14th 2015 in Stuttgart, Germany
- **20% discount** for travel costs to [green2market & World of Energy Solutions](#) from October 12th to 14th 2015 in Stuttgart, Germany
- **Free tickets** for the trade show [eCarTec](#) from October 20th to 22th 2015 in Munich, Germany

Please contact H2-international for more details.

---

## Advert

**whhec**  
2016

World Hydrogen  
Energy Conference 2016

Zaragoza - Spain  
13-16<sup>th</sup> June 2016  
[info@whhec2016.com](mailto:info@whhec2016.com)

**Call for abstracts**

Open April 2015  
Deadline 31<sup>st</sup> October 2015

So mark your calendars now, we look forward to seeing you in Zaragoza

[www.whhec2016.com](http://www.whhec2016.com)

---

## Imprint & Social Media

**H2-international** – Hydrogeit Verlag, Sven Geitmann, Gartenweg 5, 16727  
Oberkrämer, Germany, Tel: +49 (0)33055-21322, Fax: +49 (0)33055-21320

E-Mail: [info@h2-international.com](mailto:info@h2-international.com), Homepages: [www.h2-international.com](http://www.h2-international.com) &  
[www.hydrogeit-verlag.de](http://www.hydrogeit-verlag.de), UID/VAT: DE221143829

