



Regional value creation with renewable energies demonstrated by the district of Rhein-Hunsrück



"By the means of step-by-step implementation of energy efficiency and renewable energies we transfer € 290 Millionen annual energy-import-costs in regional jobs and added value!"

Dr. Marlon Bröhr (Head of District Authority Rhein-Hunsrück) and Frank-Michael Uhle (Climate Protection Manager)







Editorial

"The money of the village belongs to the village". This 150year old sentence from Friedrich Wilhelm Raiffeisen is more relevant than ever, taking into account the demographic change that is ongoing in rural areas. To encounter challenges like rural depopulation and loss of infrastructure outside the conurbations, it requires good ideas and economic strength to act. Future-oriented investments presuppose own finanical resources.

Best Practices, which combine regional value creation with the urgently needed energy transition, are presented in this handout: from very small approaches that lead to far-reaching local developments up to comprehensive approaches at district level. Besides economic improvements, all examples helped to achieve a stronger awareness for energy transition and climate protection among citizens and helped to revitalize village life. The Energy Agency Rhineland-Palatinate initiaties and supports projects like these. The combination of climate protection, energy transition and regional value creation is always a central concern.

With examples like those documented below, we would like to draw attention to many synergies and benefits that exist at local and regional level through integrated and participatory approaches. They should contribute to the transfer of good ideas and successful projects of the energy transition within the country – and if possible beyond.

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"On-side benefiting from the energy revolution": Practical example district of Rhein-Hunsrück

Considering the ongoing climate change and its already in Rhineland-Palatinate noticeable effects there is no time to loose, to bring climate protection and the energy revolution further. The fact the decentralized energy transition is getting along with various benefits for the local development, is demonstrated by the district of Rhein-Hunsrück.

With 102.000 inhabitants and 991 km² area, the Hunsrück is a very rural region. The allocation of the inhabitants to 137 towns and villages results in a "small scale settlement structure"; 75 % of the local communities have less than 500 inhabitants.

Similarly to other rural regions in Rhineland-Palatinate the region has to face the demographic change with various challenges – from the provision of a functional infrastructure up to the preservation of an attractive, vital live on the land.

But in the Hunsrück the chances were early recognized. On the base of a climate protection concept, unanimously decided by the district council in December 2011, the exploitation of local energy-saving-opportunities and renewable energies potential from biomass, sun and wind, have been focused on.

Thereof economy and climate protection are benefiting equally:

- Already by 2018 the district is becoming a zeroemission-district (at the balance sheet) in the sectors of heat, mobility, electricity and waste, which might be unique for a German inland district.
- The investments in renewable energies plants are amounting to € 1.2 Billion until 2015; thereof € 102 Million order volume for the domestic economy.
- The annual regional added value from the operation of the plants amounts to approx.
 € 43.5 Million.

The following practical examples are exemplarily showing how the combination of local climateprotection-measures with regional added value, public service, economy and tourism promotion as well as citizens participation and integration worked out in the Hunsrück. Numerous other activities in the district could be added and contribute to this development.







Horn convinces with its lightning-concepts, saves energy and improves the self-supply

The 356 inhabitants village of "Horn" in the Hunsrück developed future oriented infrastructures with a lot of commitment.

The renovation of the community hall gave the occasion to implement an other, already long time envisaged energy-concept. At the roof-top of the community hall in the village center a PV-system with 28.8 kWp capacity was installed, connected to five battery storages with a total of 30 kWh ability and 24 kW capacity. The PV is well-integrated in the slate roof, fitting to the architectural concept of the esamble.

Already in the run-up the street-lighting was changed over to economical LED-illuminates. They upgrade the street scene with aesthetical attractive illumination. Unique in the Horn model is that the electricity demand for the whole LED-street-lighting in the village is covered by the PV-system and the batterystorage in the community hall. The community hall as well is supplied with sun-electricity; surplus amounts are fed in to the grid. "We made our dream come true: the combination of a Photovoltaic systems with a battery storage for the supply of the LED-street-lighting in the whole village is fitting and contributing to the appearance of our village!"

Mayor Volker Härter

And the model is cost-effective. The investment costs of around € 70.000 (only € 30.000 are omitted to the battery storage) amortize themselves especially over the elimination of the formerly high annual costs for the streetlighting. Furthermore the community is increasing the self-supply and independence up to a self-consumption-rate of around 47% (the degree of self-sufficiency on the balance-sheet is therefore at 63%). This contributes to the future-oriented public service and more independence on-side. Climate and environment are benefiting of approx. 6 tons of CO₂-savings per year. The concept could be expanded to electric mobility, for the selfsupply of a communal vehicle or a car-sharingvillage-car, this are the further plans of the municipal council.







✓ CO₂-saving approx. 6 t/ a
 ✓ Avoided electricity procurement costs approx. € 2.500/ a
 ✓ Average annual incomes approx. € 1.400/ a

Initiators:	Municipal Council of Horn
Occasion:	Renovation of the community hall
Target:	Self-supply with PV-power of the new, energy-efficient street-lighting and the community hall
Concept	Implemented energy-system of roof-top Photovoltaic, battery storage and LED-street-lighting
Specifications:	 > PV-roof-top-system with 28.8 kWp; built-in modular technique: Monocrystalline 300 W; calculated annual electricity yield: 21.500 kWh/a > 5 battery-storages each 6 kWh (in total 30 kWh) > power-self-consumption: 10.000 kWh/a > grid feed: 11.500 kWh/a
Implementation:	6 th of June 2017 (commissioning)
Benefit and synergic effects:	
Ecological effects	CO ₂ -Reduction of approx. 6 tons/ a
(environmental and climate protection)	Decrease of the light-emissions
Economical effects:	Annual costs-saving of approx. € 2.500 through the avoided electricity procurement costs (street-lighting and community hall)
	Annual incomes from electricity feed of approx. € 1.400 (EEG-feed-in)
	Appreciation of properties (community hall)
	Approx. € 70.000 order volume for the domestic craft
Social effects:	Joint project of the local assembly
	Knowhow-improvement
	Citizens awareness/ recognition of the local authority as a living example
Further effects for local development:	Contribution to the public service and independence with a self-consumption-rate of 47 $\%$
	Aesthetical improvement of the street-view
	Image improvement and public attention
	Base for further development-opportunities, e.g. electric mobility



d Significant for the success was:

- ✓ Good cooperation within the local council
- ✓ Holistic approach to enable synergies that contribute to the development of the municipality
- Competent consultation during the development of the energy concept



Schnorbach sets new standards for joint energy saving

The local assembly gave its approval for the construction of two wind turbines on district owned properties in 2014. Already by this point in time the communal decision-makers were on the same page: The rental incomes shall be used for developments on-side and one part directly for energy-saving-measures in the around 95 local households. The basis for the Schnorbach model, a holistic communal energy-saving-guideline with staggered support contributions depending on the complexity of measure, was set. The guideline with its holistic approach is considered as state-wide unique. In the meantime it serves as a show-case and has been copied by other municipalities.

The community wants to decrease the power consumption in the village significantly and this shall made as easily as possible for its citizens. As start the community offers energyconsulting of the consumer advice center, which shall help with the clarification of occurring questions and saving-opportunities. Besides the financial support by the Federal Ministry for Economics, the low co-payment is covered by the local authority. Simultaneously the community it counting on comprehensive information. Examples are the district's campaigns just as "Who owns the oldest refrigerator?", "Who owns the oldest heating-pump? We give you a new one!". Such actions are inviting for participation and are helping to overcome sluggishness. Already at one "LED-exchange-day" of the community 60 households participated. Several measures, however, are initiated directly by the citizens.

"The Schnorbach model is an approach, to reach a common level in energy-saving in a simple way."

Mayor Bernd Kunz

An interim conclusion from the October 2017 confirms the success. Since the end of 2015, € 312.000 for energy-saving-measures were invested from the citizens, the communal support-share is € 63.000. Besides the exchange of inefficient illumination or white goods, these also include the exchange of heating pumps, doors, windows as well as building insulation or the installation of Photovoltaic, partially with battery storage.







Since 2015:

✓ CO₂-saving approx. 90 t/ a
 ✓ Avoided energycosts approx. € 20.000/ a

✓ Triggered investments: € 312.000

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Initiators:	Municipal Council of Schnorbach
Occasion:	Communal rental income from the wind power
Target:	Implementation of a significant energy-saving in the village – simple and effective
Concept:	Development and use of a holistic energy-saving-guideline with communal aid money as well as accompanying campaigns, competitions.
Specifications:	> Support and active advertisement of individual energy-consultation > Support of single-measures, e.g.: exchange of white goods (e.g. refrigerators), heating circulations pump, night storage boilers, windows/doors; hydraulic comparison, photovoltaic-system, battery-storage, building insulation, installation of renewable heating-systems or energy-efficient ventilation-systems; new construction of a passive house with sums up to € 6.000/ household.
Implementation:	Since 2015 (Start of the energy-saving-guideline in May 2015)
Benefit and synergic effects:	
Ecological effects:	CO ₂ -Reduction of approx. 90 tons/ a since 2015
Economical effects:	Avoided energy-costs for the citizens of approx. € 20.000 / a since 2015
	Triggered investments for energy-saving-measures of around € 312.000/ since 2015
	Approx. € 312.000 order volume for the domestic craft and the domestic trade
Social effects:	Joint project of the local assembly and citizenship; support of the common engagement/ the local solidarity
	Knowhow-development
	Financial participation of the citizens at the rental incomes from the wind power
Further effects for local development:	Modernization of the appearance of the village
	Public attention, showcase and knowhow-transfer (transfer of the model to more than 40 other communities in the Hunsrück)
	Base for further development



Significant for the success was:

- ✓ Standing behind the project and being present at the campaigns as mayor and municipal authority
- Using the engagement of the citizens overcoming sluggishness and taking up impulses by the citizenship
- Even without rental incomes the simple implementation of the supporting-measures could have been thinkable involving local partners and sponsors







Public service and climate protection: the solar local-heat-network in Neuerkirch-Külz as example

The local communities of Neuerkirch and Külz in the Hunsrück, which are directly side by side, are already intensively dealing with the future of their villages for several years. Therefore in the course of the development-concept "Fit for the future" working groups were formed in Neuerkirch in 2013, involving the citizens, among others, in the area "Ecology". On the initiative of this working-group a closer look at the opportunity of a local-heat-network was taken. It was targeted to switch from fossil energy-sources to renewable, climate-gentle sources by using local resources. Also aiming at the increased value creation in the village. In coordination with the mayor and the local assembly the working-group "Ecology" conducted citizens-interviews and dealt with technical issues occurring in relation with the feasibility of a local-heat-network, such as the energy-source, the location and the operator model. The interest of the citizens was huge from the beginning.

For the operator model it was decided to choose the communal self-operation of the energy supply region Simmern (ERS), branch of industry at the municipality-facilities Simmern. As energy-source it is count on wood-chips which are available sufficiently in the community owned forest.

"Despite of initial difficulties: with the implementation of the local-heat-network we made a important contribution to the public services of our communities and to the climate-protection."

Volker Wichter, Mayor of Neuerkirch

The great demand of the citizens led to a extended network planning, in which a connection to Külz was integrated. Because there were also existing plans for a local-heatnetwork, the further planning process was continued together. With an extension to over 100 objects the involvement of a solar-thermal field became economical and in the end the two local congregations realized the so far largest solar-thermal local-heat-network in Rhineland-Palatinate. In the course of the implementation further synergies were used, e.g. a fiber optic tube, cost-neutral for every house, base for the use of a fast Internet.







CO₂-saving approx. 1.200 t/ a Avoided outflow of funds for energyimports of approx. € 240.000/ a Closing regional economic cycle and material flows

Initiators:	Municipal council of Neuerkirch and Külz, working group Ecology/ Neuerkirch
Occasion:	Suggestions from the village development process with citizens participation
Target:	Switching from fossil to renewable, climate-gentle energy-resources, using local resources, to keep the value creation in the village
Concept:	Solar local-heat-network on the base of solar-thermal-energy and wood- chips, initiated and prepared with intensive involvement of the citizens and local working-group, implemented intercommunal
Specifications:	 > 6.100 m local-heat-network, 143 connected houses (80% connection-rate) > Wood-chips-boiler with heating-capacity of 900 and 360 KW (Redundant boiler on the base of heating oil)
	> Solar-thermal-field with 1.422 square meters collector-area, which contributes to the heat-supply with a generation of approx. 650.000 KWh/a
Implementation:	Initiation since 2013, commissioning in August 2016
Benefits and synergic effects:	
Ecological effects:	CO ₂ -Reduction of over 1.200 tons/a (with the saving of around 400.000 liters of heat oil/a for single-furnace-facilities in households)
Economical effects:	Avoided outflow of funds through energy-imports of approx. € 240.000/ a
	Total investment approx. € 5 Mio, State-support approx. € 480.000
	Contributing to regional economical cycle through the use of domestic energy-sources and materials (e.g. 4.500 cubic meters of wood-chips from community forest)
	Saving of jobs: around € 5 Million order volume for the domestic craft, operation and fuel supply (wood-chips from residual forest wood).
Social effects:	Participation of citizens and support of the civic engagement (working-group foundation, citizens-interviews etc.)
	Supply-reliability and prize-stability
Further effects for local development:	Long-term ecological modernization of the community-infrastructures
	Image gain and practical showcase
	Intensification of intercommunal cooperation



Significant for the success was:

- Early participation of the citizens
- ✓ Openness and willingness of citizens to develop such a project
- ✓ Significant and future-oriented upvaluation of the village
- \checkmark Fibre optic connection to use fast internet in each household

Volker Wichter, Mayor of the local community Neuerkirch







Mörsdorf – how a village is making its way to the future thanks to the energy revolution

In some cases it is the locational advantage, which is the initials-base for the local energy revolution and gives new opportunities to the communes. But also in these cases this advantages need to be used, the potentials need to be recognized and lifted. Not a mandatory sure-fire success and by no means self-evident...

In the community of Mördorf with its 620 inhabitants this opportunity was recognized and used. At the wind-intense location eleven wind turbines with 2.4 MW capacity each were built in 2015, a main part of these on community owned properties. Therefore the community receives a basic-rental-income from the wind-park-operator as well as a perceptual share (depending from the wind-yield). Furthermore Mörsdorf is benefiting from a solidarity pact of the former municipality of Treis-Karden, which shares rental-income between neighboring communities. By that the annual available money for the community sums up to more than € 200.000 – essential financial base, to overcome present as well as future challenges and to keep the live in such a rural area attractive.

"The new financial opportunities clearly changed the all-day live in a positive way – the embellishments within the village or at the visitors-center as well as the outlook to an enliven future are showing this clearly."

Mayor Marcus Kirchhoff

What is possible with free resources in rural municipalities can be seen at the over the state's borders known project, the Geierlay, with 360 meters the longest hanging rope bridge in Germany, located directly near the village.

In the first two years after its opening already 570.000 people came to visit the bridge. The village of Mörsdorf is flourishing for tourism. New holiday homes and cafes are not only bringing money into the village, but also create and save jobs. Shares of the communal rental incomes were put into the project and helped open other future perspectives. Ingo Börsch and Marcus Kirchhoff, local project initiators are sure: Without the incomes from the wind power the bridge would have stayed a dream.







- ✓ CO₂-saving of approx. 20.000 t/ a on the balance sheet through wind power
 ✓ € 200.000 local incomes/ a
- Commitment for village-revitalization, infrastructure and touristic highlight

Initiators:	Mayor Marcus Kirchhoff and other members of the municipal council
Occasion:	Usage of locational advantages for the wind power in connection with chances for local development
Target:	Use of the generated incomes for village-development-measures and the touristic highlight "Geierlay-Bridge" for the generation of further value creation effects on-side
Concept:	Leasing of community owned areas, use of funds for village-renovation and light-house-project "Geierlay-Bridge", latter initiated through local project-group with perennial preparation and persuasion
Specifications:	> Private wind park with 11 wind turbines with 2.4 MW capacity (since 2015)
Implementation:	Wind park commissioning in 2015, opening of the Geierlay-Bridge in October 2015
Benefit and synergic effects:	
Ecological effects:	CO ₂ -Reduction due to on-side wind park of approx. 20.000 tons/ a (on the balance sheet)
Economical effects:	Local incomes, especially from rent, of around € 200.000/ a
	In addition incomes of € 1.850 / a from the solidarity pact of the former municipality of Treis-Karden
	Impulse for other investments with extensive value creation effects, in particular the Geierlay-Bridge (€ 1.2 Million investment)
	Saving/ creation of jobs in the renewable energies-sectors (regional wind turbine maintenance teams) as well as the tourism-sector
Social effects:	New future perspectives for the local municipality and its citizens
	Attractive supply and tourism-infrastructure on-side
Further effects for local development:	Improved public services
	Village-development and tourism supporting
	Image gain and public attention



d Significant for the success was:

- Participation and financial inclusion of the citizens in wind park development on-side
- Cooperation within the local municipality and with neighboring municipalities
- \checkmark Take the opportunity also for the realization of visionary

Ingo Börsch, former member of the municipal council and Marcus Kirchhoff, Mayor of the local municipality of Mörsdorf







The district of Rhein-Hunsrück produces heat with local waste biomass and creates jobs

Considering the strategic target of a regional energy- and material flow management, the district of Rhein-Hunsrück realized in cooperation among others with the Rhein-Hunsrück Entsorgung (district owned disposal enterprise), the municipality of Simmern, Kirchberg and Emmelshausen three local-heatnetworks in which 39 predominantly communal large-buildings are heated with high-quality prepared tree and shrub cuttings of the citizens: besides 22 school-buildings also eight gyms, two indoor and outdoor swimming pools, one canteen-building, one library, one townhall, two homes for old people and one municipality-administration-building are connected.

Because at the more than 120 decentralized collecting points for green cuttings over 200 kg of green-waste comes together, it was clear that these resources shall be put into energetic value. The stepwise implemented three heatcentrals, heart-piece of the respective localheat-network, are equipped with special solidfuel-boilers, which enable the technical use of the prepared bio mass. Due to this approx. 50% of the occurring waste biomass could be used thermally. With Biomass which is not thermally used, a high-quality fertilizer is produced and sold.

"Thanks to our tree and shrub cuttings concept it was possible for us to put waste biomass into value and to create five new jobs!"

Andreas Schromm and the commercial manager Thomas Lorenz, Rhein-Hunsrück disposal

The thermal use of the local resources in the three heating networks is saving approx. 800.000 l of heat oil equivalent annually. The kindling market is not affected.

The closed material flows and increased value creation are for the benefit of the citizens.

Outflows of funds are avoided and the selfsupply on the base of domestic resources is strengthened – a contribution to the regional economy and independence.







- ✓ Avoidance of approx. 680.000 liters of heat oil imports/ a
- \checkmark CO₂-saving approx. 1.045 t/ a
- Regional use of resources, added value and jobs

Initiators:	District of Rhein-Hunsrück and Rhein-Hunsrück disposal (RHE)
Occasion:	High amount of tree and shrub cuttings
Target:	Conversion to value of the waste bio mass by the thermal use and simultaneous CO ₂ -free energy generation; closing of local material flows
Concept:	Preparation of the tree and shrub cuttings in a central fuel storage and use in meanwhile three heating centrals, equipped with technical suitable solid fuel boilers; heat output by the corresponding local heat networks for the prevention of especially communal major consumers (e.g. schools)
Specifications:	 > 120 green-cuttings collecting points and one central processing side with biological and physical drying > Three heating centrals with solid fuel boilers with capacities of 500 to 850 kW > Three local heat networks with 39 communal consumers in total
Implementation:	2010 to 2012
Benefit and synergic effects:	
Ecological effects:	CO ₂ -Reduction of around 1.045 tons/a
Economical effects:	Saving of around 680.000 liters of heat oil/ a > Avoided outflow of funds of approx. € 480.000/ a (in 20 years approx. € 9.6 Million)
	Summed up this are 5 new jobs for the operation of the system
	Regional investments of € 7.1 Million in total
Social effects:	Supply reliability and prize stability
Further effects for local development:	Improvement of public service, contribution to the self-supply and independence
	Exploitation and conversion to value of regional economical circles
	Image gain and public attention



d Significant for the success was:

- ✓ Political willingness to new developments
- ✓ Trustfull cooperation within the "local family"
- ✓ Competent planning office
- ✓ Committed employees at the Rhein-Hunsrück disposal (RHE)
- Positive participation of the citizens (good practice in waste separation)

Thomas Lorenz, Commercial Manager of Rhein-Hunsrück disposal



Mastershausen manages demographic change due to income from renewable energies

Already since 2007 wind turbines are running in the local municipality of Mastershausen. At the same time, the challenges for the villages, which occur from the demographic change, were already present and recognized. Mastershausen took its opportunity. On the basis of income from local energy projects, a comprehensive development-perspective for the village was developed and step-by-step implemented.

As a pioneer in the subject of wind power the municipality first had to overcome resistances. From the beginning the focus was on the opportunities for the local public service of the village. The rental incomes agreed with the wind park operators were used for several revitalization projects. From 2007 to 2013 installed 14 wind turbines on community-owned terrain, annually incomes of € 300.000 are providing the funds for these investments. In addition to that incomes of € 630.000 from a PV-system with 2.75 MWp also on community owned properties (one-time rental income).

Other local municipalities in the region followed and also implemented wind power projects within their territories, using the income for local investments.

"Without the incomes from the renewable energies this future-perspective would not exist."

Mayor Jürgen Schneiders

The financial funds are invested into measures, which make it possible for people from all generations, to live in the village und thereby manage the challenges of the demographic change. For elderly people a former school was changed into a building for age-appropriate living. Families receive financial support for their house-construction or renovation.

Furthermore the appearance of the village was was embellished – for the benefit of residents as well as guests. New touristic projects and DSL-connection support the economical development of the village. An enlivened community and a functional infrastructure create an attractive living environment.







 ✓ CO₂-saving of 24.000 t/ a
 ✓ € 300.000 income/ a from wind power
 ✓ Diverse investments for villagedevelopment and to encounter demographic change

Initiators:	Mayor and municipal council of Mastershausen
Occasion:	Use of locational advantages for the wind power to improve the local budget situation and CO ₂ -free energy generation
Target:	Use of the generated incomes to master challenges such as the demographic change and creating future perspectives
Concept:	Rent of public owned properties for wind power projects, transparent communication of the local incomes and targeted outflow of funds in various village-development measures, e.g. new construction of public facilities such as club-training-rooms, youth-halls, library, kindergarten, play grounds, conversion of the old school into a home for elder people and meeting-cafe, new installation of a local recreation area, street-lightings, DSL-connection, clubs funding, etc.
Specifications:	 > Private wind park with 14 wind turbines with 30.1 MW capacity since 2013 > Private PV-system at community owned properties of 2.75 MWp
Implementation:	Wind park commissioning between 2007 and 2013, commissioning PV- system 2010, continual village-development-measures
Benefit and synergic effects:	
Ecological effects:	CO ₂ -Reduction of 24.000 tons/ a by local wind power and PV system (on the balance sheet)
Economical effects::	Local incomes, especially from rent, of approx. € 300.000/a from the wind power and € 630.000 from PV (one-time-rent)
	Local investments into village-development
Social effects:	Improved living environment for families and elderly people , enlivened club life
Further effects for local development:	Improved public service
	Future perspectives for community-development
	Image gain and public attention
	Intensified inter-communal cooperation through financial support of the neighboring-communities
	 Significant for the success was: Transparent and early-stage information of local citizens Communication of income earned with local renewable energy
	projects as well as the investments enabled due to these

 ✓ Targeted use of income for comprehensive village development Generation of noticeable positive effects for the citizens – at different level and different age

Jürgen Schneiders, Mayor of the local community Mastershausen







Saving energy and money in socially disadvanted households – energy-saving-campaign shows how

Already by the end of September 2014 the district administration Rhein-Hunsrück started the public relations works to the topic of the saving of electricity. As part of the district wide climate-protection-initiative the campaign "Rhein-Hunsrück is saving electricity" especially addressed the local households. With the offer of energy consultation by the consumer advice center as well as competitions for the exchange of white goods, heating pumps or inefficient illuminates to LED, it was planned to motivate for a more intensive saving of electricity. Without a problem it is already possible to halve the power-consumption in a household with such measures.

Numerous local municipalities invented additional funding programs, which prevent an additional incentive to become active. The simple kept hands-on actions are showing success. Since the start of the campaign hundreds of households participated in the actions. The gained energy savings contribute to the climate-protection, saved finances in the households and increased the engagement of the citizens. "In the course of the energy revolution we need to take along everybody, even the socially deprived!"

Energy consulter Uwe Kaska

In a social add-on-campaign with the financial funding of a local foundation the offers were focusing on socially deprived households. In more than 100 socially disadvanted citizens. Iilluminates were exchanged and other energy-saving-helpers were allocated in defined households. Already with the for free allocated LED-bulbs each valuing € 50, it is possible to save approx. € 100 of electricity costs per year. The citizens are saving real money, which they could use for living, thus the statement of the manager of the job center Rhein-Hunsrück, who mediated in the course of the action.

With assistance of the honorary refugee-aids the illuminates in approx. 70 first-apartments of refugee families were exchanged for free. Which besides financial benefits also contributes to an increased awareness for climate protection and thus contribute to integration.







Since 2014:
 ✓ CO₂-saving approx. 27 t/ a
 ✓ Saved energy costs approx. € 20.000/ a
 ✓ Triggered investments: € 10.000

Initiators:	District administration Rhein-Hunsrück
Occasion:	Climate-protection-initiative by the district
Target:	Impulses for a stronger saving of electricity and support of socially deprived households
Concept:	Public effective campaigns and competitions for the saving of energy, with social add-on-campaign, which supports the exchange of ineffective illuminates to LED in socially deprived households and asylum apartments
Specifications:	 > Support and active advertisement for individual energy consultation > Single-measures and hands-on activities for the saving of electricity: competitions for the exchange of white goods and heating pumps; exchange of illuminates. > Social add-on-campaign, which provides socially deprived households and citizens with for-free energy consultation on-side, the exchange of inefficient illuminates and further simple energy-saving measures. The Job center Rhein-Hunsrück mediated the consultation in socially deprived households, the funds are provided by the Sparkassen-foundation of the Kreissparkasse Rhein-Hunsrück
Implementation:	Since 2014 (social add-on-campaign 2014 to 2017)
Benefit and synergic effects:	
Ecological effects:	CO ₂ -Reduction of approx. 27 tons/ a
Economic effects:	Avoided energy-costs for the citizens of approx. € 20.000/ a
	Investments for energy-saving measures of approx. € 10.000/ since 2014
Social effects:	Integration of socially deprived households and citizens as well as refugees in local climate-protection-activities.
	Knowhow-development
Further effects for local development:	Cooperation of several regional facilities (Job center, foundation, district administration, consumer advice center)
	Public attention, showcase and knowhow-transfer
	Base for development / continuation of the campaign due to a high request



Significant for the success was:

- Local advertisement of the nationwide offered energy consultation by the consumer advice center
- ✓ Gain and network with local campaign-partners (Job center, social welfare office, consumer advice center foundation by the Kreissparkasse, local meeting-cafes of the refugees-aids, local press)
- ✓ Financial support by a local foundation

Dr. Marlon Bröhr, Head of District Authority Administration of Rhein-Hunsrück-Kreis





District of Rhein-Hunsrück: Value creation and public service with the energy revolution



Built future: Rental income from the power enable village development and the tourism project "Geierlay-Bridge".

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Village-revitalization through renewable energies: € 300.000/a rental income from the wind power enable villagedevelopment.



Closed economic and material flows:

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Energetic use of biomass enables value creation and jobs.



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Simmern

Supporting citizens:

Energy saving campaign supports the citizens and includes socially deprived households.

<u> Rhein-Hunsrü</u>

Boppard

Karbach

Emmels



Increased self-supply Increased self-supply and attrativeness with an innovative energy and illuminationconcept.

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Public service and climate protection: Solar heat-network as an intercommunal future-project.



Saving together: Communal energy saving guideline supports private energy saving.

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Schnorbac
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