Company Profile – Hydropower Evolutions GmbH

Landshut | June 17, 2016
Hydropower | Why invest in hydropower
Uniper | Our corporate background
Hydropower Evolutions | Your partner of choice
Investors’ Challenges | Hydropower as an asset class
Distinct Expertise | Matching our customers’ needs
Case in Point | Pilot project Hasang
Next steps | Contact us!
At the dawn of the post-crisis era, investors worldwide are increasingly looking for infrastructure investments.

Capital is available

But: Markets are volatile

Trend: Infrastructure investments

Following a period of a crisis-born cash drain, 170,000 bnEUR of free capital with both private and institutional investors will be searching for profitable investments in the years to come.

Nowadays, classical asset classes such as “equity” or “fixed income” either carry high risks and/or deliver low returns.

By contrast, asset-backed investments in long-lived, high-value physical infrastructure assets that are difficult to substitute, provide average but secure returns through steady cash-flows – “real assets” are therefore a must-have for diversifying investment strategies.

Among infrastructure investments, hydropower is an established and profitable long-term investment opportunity for strategic investors.
Uniper – a strong energy company with the right assets, knowledge and skills

Uniper has a deep understanding of global and regional energy markets, regulatory regimes, and market designs. We have a wide range of capabilities in the construction, management, and operation of large-scale energy assets as well as the optimization and risk management of assets and contracts. And we have long-standing relationships with industrial customers, municipal utilities, system operators, and our suppliers. These strengths and networks reinforce one another. There are three main areas in which Uniper deploys their strengths:

1. We help ensure security of supply in Europe as it transitions to a low-carbon future
2. Our trading activities connect global commodity markets
3. We support the development of power markets outside Europe with our own generation activities and our services for third parties, e.g. through Hydropower Evolutions, proud member of the Uniper Group

Uniper’s portfolio combines large-scale power generation and the effective management of global and regional energy supply chains.
Uniper is an experienced and leading operator of hydro plants totaling more than 5 GW in Sweden and Germany.

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<th>Uniper Generation Assets</th>
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<td><strong>Hydro</strong></td>
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<td>CCGT</td>
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<td>Steam</td>
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<td>Nuclear</td>
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**Selected examples**

- Gulsele
- Storfinnforsen
- Hemfurth
- Ramsele
- Dingolfing
- Niederaichbach

**Where do we come from?**

- Sweden (69 plants)
  - Sundsvall
- Germany (110 plants)
  - Landshut
Hydropower Evolutions is a professional advisory, developer and asset manager in the field hydropower

Uniper is a reliable partner for developing energy markets in the field of hydropower through its subsidiary Hydropower Evolutions GmbH – a new brand to deploy our unique expertise, which...

- ... embraces and utilizes Unipers’ long-term investor know-how
- ... takes investor’s risk and focus on value creation in every project
- ... ensures compliance with international sustainability principles and standards
- ... contributes comprehensive technical expertise and broad industry network
- ... in order to maximize partner’s and client’s project success and asset value
Infrastructure investors scanning the market for cash-flow generating hydropower plants face three challenges:

First challenge: Safeguard engineering quality and international ESG requirements
- Intl. technical engineering standards and expertise
- IFC Performance Standards

Second challenge: Access to hydro investment opportunities in key markets

Third challenge: Manage asset portfolio from a technical point of view
- Asset planning and budgeting
- Risk mgmt. and O&M strategy
- Performance management
- Operational Excellence

ESG = Environment, Social, Governance
Hydropower Evolutions: a reliable partner in reducing risks and creating significant values in hydro investments

Business areas of Hydropower Evolutions addressing key challenges:

- **Advisory Services**
  - Independent Advisor
  - Worldwide provision of in-depth expertise to clients in the fields of development, execution, rehabilitation, acquisition and divestment of hydropower assets

- **Joint Ventures**
  - Equity Investor
  - Development of greenfield hydropower projects together with local partners in emerging markets from site identification until financial close

- **Asset Management**
  - Technical Partner
  - International management and portfolio optimization of individual or groups of hydropower plants under operation on behalf of the owners
Advisory Services enable us to build trustful relationships and turn existing Clients into future Joint Venture Partners.

**Long-term investor know-how**

- Value-driven approach based on long-term experience in buying and selling of hydropower assets
- Technical, financial, and sustainability due diligences, analyses, and sales pitch

**In-depth engineering expertise**

- 120 years of experience in developing, constructing and operating hydropower plants captured in state-of-the-art tools, methodologies and management systems developed in-house

**Extensive industry networks**

- Access to key engineering firms, incl. top-tier equipment suppliers, leading academic professionals, as well as a wide range of strategic and institutional investors

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*Hydropower Evolutions:*

**Project Steering, Management & Engineering** (development, execution, rehabilitation)

**Due Diligence** (acquisitions & divestments)

**Client:**

Data Provision & Local Stakeholder Management
Joint Ventures form the core of our business model – profitable and sustainably developed hydropower projects

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<th>Key principles</th>
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<td><strong>Closing a market gap in emerging markets</strong></td>
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<tr>
<td>Hydropower Evolutions addresses a market demand for reliable renewable energy power plants delivering on their promises and exploiting the great natural potential in emerging markets</td>
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<td><strong>Entrepreneurial ownership, focus on value maximization</strong></td>
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<td>Differentiation from competitors by entrepreneurial ownership, focus on value maximization</td>
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<td><strong>Pilot project outperformed business case assumptions</strong></td>
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<td>Pilot project Hasang in North Sumatra – Successful demonstration of our development capabilities</td>
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<td>Technical and Commercial Project Development</td>
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<td>Sustainability Performance Management</td>
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**Partner:**
- Local Stakeholder Mgmt. (incl. SPV, permits, land, PPA)

SPV = Special Purpose Vehicle, PPA = Power Purchasing Agreement

Internationally bankable run-of-river development in Sumatra, Indonesia, achieved significant returns for project owners during partial sale to a multinational business conglomerate in 2012
We increase the value of hydro portfolios under operation through performance-driven Asset Management.

Hydropower Evolutions’ management team strongly benefits from its line management responsibilities in the Asset Operations of Unipers’ 5 GW hydropower portfolio.

Hydropower Evolutions commands the full range of technical asset management functions incl. asset planning and budgeting, risk mgmt., O&M strategy, performance review, and cont. improvement.

Broad access to and undivided attention of exceptional professionals and thought leaders in the energy and private equity sector via the expert panel of Hydropower Evolutions.
Unique value creation for our project partners and investors through a great variety of products and solutions

Investor expertise, operational competence, performance orientation, financial benefit

Professional and fast development of profitable greenfield hydropower projects, together with a partner in emerging markets, ready to be constructed/operated, and offered to international investors for a lower price compared to their in-house costs for the same development, along with advisory services upon demand.
Hydropower Evolutions closes a market gap between local hydro developers and international investors

**Local Project Partners**

... have limited bargaining power over suppliers, risk budget and time overruns, and suffer from mediocre hydro developments.

Together with us, however, they...

- Spend less for project development
- Shorten development cycle
- Reduce risks
- Achieve a high-quality result
- Benefit from value creation
- Get access to (co-)investors
- Keep option to acquire our project share after development phase

**International Investors**

... face difficulties identifying sustainably developed, profitable projects managed by hydropower professionals in emerging markets.

Together with us, however, they...

- Gain access to well-developed hydropower projects
- Deal with capable and experienced management team
- Establish long-term relationship within the hydropower industry

**Partnerships based on trust and commitment**

**Benefits for partners/investors**
Pilot Project Hasang in North Sumatra – Successful demonstration of our development capabilities

HPP Hasang
run-of-river power plant
42 MW, 275 GWh/a
We invite you to contact us!

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