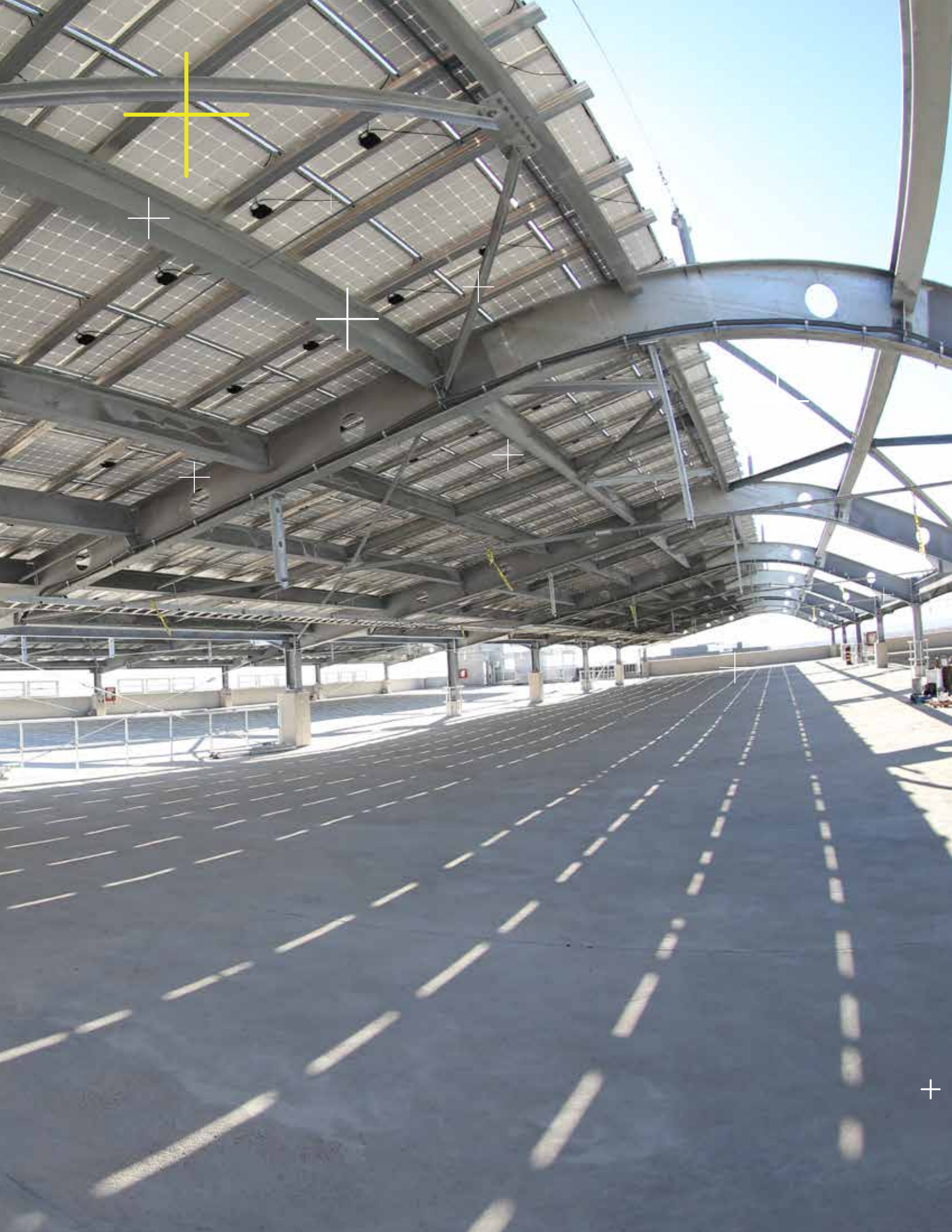
+ Solar Power

HATCH



Powering progress

Efforts to address climate change are spurring heavy investment in renewable energy all around the world. Solar power is leading the charge and opening up new opportunities for developers, corporations, and investors alike.

Growth projections for solar power are positive. Innovation in all aspects of the industry, from technology and design to project delivery and financing, are driving down costs. But with new opportunities come new challenges.

Project developers and owners face a competitive landscape that is rapidly changing. New entrants to this exciting market must navigate a steep learning curve to understand how solar power can work for their businesses.

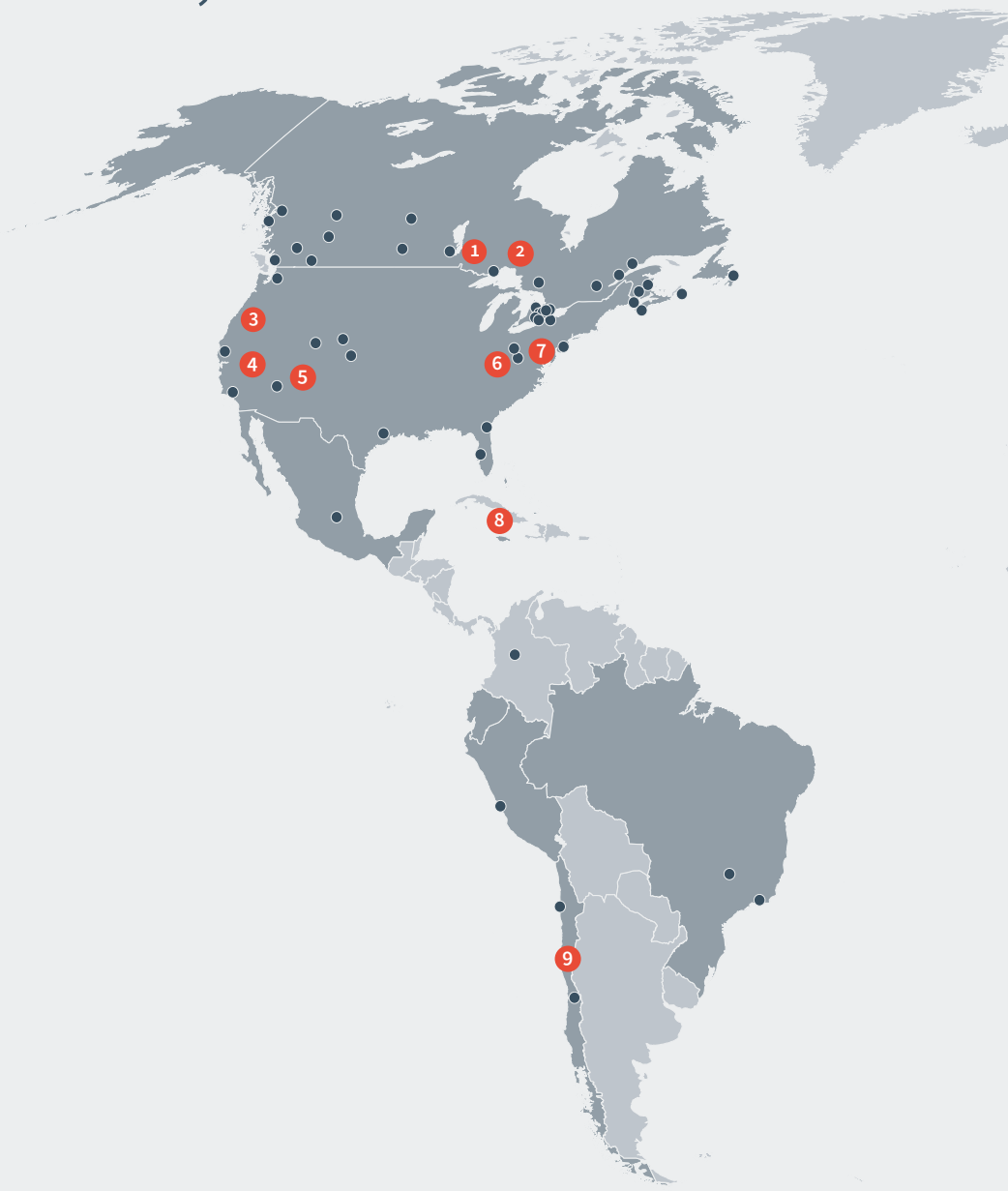
Whether your solar power business is established and thriving or you're just beginning to wade into this green energy space, you need a partner who can provide full engineering design, procurement, and construction management services. You need the value that comes from having sound advice, optimized designs, and cost-efficient facilities.

We can help you select the best sites, secure permits, and obtain financing. We're familiar with meeting safety standards and managing risks, and can guide your informed investment decisions and cost-reduction strategies.

Your goal is our goal: to make the project concept a reality and optimize the return on your investment. Not just for today, but for the life cycle of the plant.

Power generated and sold through the state-of- the-art rooftop solar array of the new Oakville hospital will help fund the Hospital Foundation through Ontario's Feed In-Tariff (FIT) program.

Global presence, local focus



- Hatch offices
- Selected solar power projects
- Countries where Hatch has provided services for solar power projects

1 Rainy River First Nations
Ontario, Canada

We provided comprehensive owner's engineer services for the construction of three solar farms located in Northwestern Ontario totaling 25 MW. With customized inverter housings and the longest piling foundations ever used in Ontario, the robust design is able to withstand extreme cold.

2 Thunder Bay Hydro
Ontario, Canada

As part of Thunder Bay Hydro's Sustainable Electric Energy Development initiative, we provided detailed engineering, procurement, and construction management for six rooftop solar projects being built on municipal buildings. Combined, the arrays cover 183,000 square feet of otherwise unused roof space and will generate income for the city for 20 years through lease payments and dividends.

3 Algonquin Power Co.
California, USA

We completed a preconstruction review of a 10 MW extension to a 20 MW solar project, including review of the site, equipment, engineering, interconnection, major agreements, EPC contractor selection, energy forecast and uncertainty analysis, schedule, operations plan, pro forma, performance testing, and permitting.

4 Colgreen North Shore LLC
California, USA

As owner's engineer for this 75 MW solar project in Riverside County, our contribution included support with electrical, interconnection, geotechnical, SCADA, equipment selection, and contractor specifications to prepare the project for construction.

5 Mesquite Solar 1
Arizona, USA

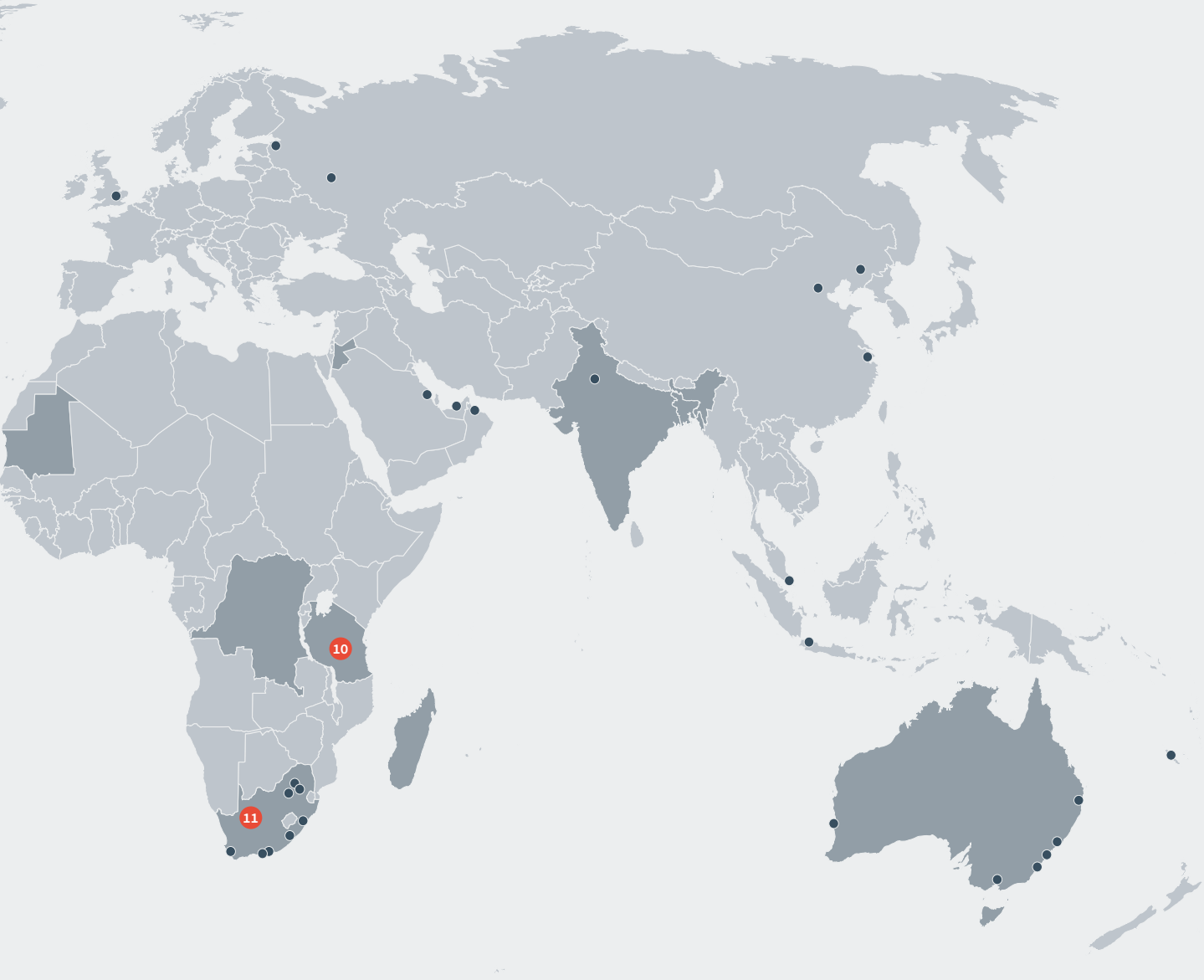
We completed an independent review of the electrical system design for the operating 170 MW solar project, including existing grounding system design specifications, grounding grid impedance measurements, fall of potential readings, and system modeling.

6 Yeager Airport
West Virginia, USA

As part of a collaborative venture, we completed detailed design and the installer RFP for a 5.2 MW solar facility on a parking garage and two airfield sites to lower the airport's energy costs and carbon footprint.

7 New York Power Authority
New York, USA

Our services helped NYPA develop strategies to streamline permitting for commercial-scale solar photovoltaic systems from 12 kW to 300 kW. We researched similar initiatives and best practices, created guidelines for electrical diagrams, investigated codes and standards for installing PV systems in the state, and developed recommendations.



8 InterAmerican Development Bank
Caribbean and Latin America

Through the Energy Audit Technical Assistance Program, we provided energy efficiency audits, small-scale renewable-energy feasibility studies, and green engineering design services to help large, private-sector energy consumers, like utilities, airports, ports, large buildings, hotels, and hospitals identify opportunities for climate-friendly investments.

9 Atacama Solar S.A.
Chile

To support financing of this 143 MW installation, we provided independent engineering services that included site review, engineering review, project participants, major agreements review, energy production estimate, permitting review, and construction monitoring.

10 Barrick Africa
Tanzania

We completed an integration study, design, and cost estimate for a 10 MW solar farm at a gold mine in Tanzania to examine how solar power could help lower electricity costs and reduce greenhouse gas emissions. Solar energy could eventually provide Barrick's three mines in Tanzania with 18 percent of their power needs.

11 Mainstream Renewable Power
South Africa

We were selected as owner's engineer for two 50 MW projects from design through to commissioning. With our in-depth knowledge of South African standards and legislation, we were able to add value to the design and construction reviews.

Essential services, sound strategies

Your solar power projects aren't like anyone else's. Soil conditions vary. Logistical constraints and environmental regulations differ from place to place.

Engineering and project delivery services

You need successful projects, delivered with strict schedule oversight, tight scope management, effective project controls, and smart design options. We're experienced at putting all the pieces together in the right sequence, combining them to maximize quality, and reduce risks and life cycle costs.

Due diligence, independent engineer, and lender's engineer services

We've worked all over the world with proven industry experts, and offer a full range of assistance to buyers, sellers, and financiers of solar power assets. Since we provide the same services for wind, hydro, thermal, and power-delivery assets, we can offer you a one-stop-shop for complex portfolio transactions.

Owner's engineer services

From concept to commissioning, we're on your team, managing your project with the same care and precision we would our own. Our solar power experts can help you enhance quality during every step of development.

Energy resource assessments and site selection

Successful solar power projects depend on rigorous, accurate resource appraisals. We work with you, reviewing the unique conditions at each site. You get a detailed assessment of energy yield potential and uncertainty, enabling credible financial projections to be made.

Remediation services

No project is without its challenges. When you encounter them, we can help get you back on track. We provide unique engineering services to solve complex problems and manage situations encountered during construction, commissioning, and operations.

Hatch was the owner's engineer from design through to commissioning of the 50 MW De Aar and Droogfontein solar projects.

A full range of support for your solar projects

Planning and implementing solar projects. Optimizing the performance of your current assets. Finding new ways and better, more innovative solutions. Our objective is to address your most serious challenges and solve your toughest problems.

Environmental and permitting services

Our environmental specialists can carry out assessments, complete the reporting processes, and represent you at hearings and stakeholder information sessions. Having this know-how close at hand expedites the permitting processes and facilitates regulatory compliance.

Interconnection services

Grid congestion, reliability, and stability are key considerations when integrating your solar generation asset with a utility grid. Our transmission system modeling and protection experts can help you optimize the point of interconnection. We'll design the substation, voltage control, and energy storage measures to allow for minimally impactful generation integration.

Management consulting services

Frequently consulted for our experience in power-sector reform, business strategy, and regulatory affairs, we're your trusted advisors on all aspects of solar power development and deployment.

Off-grid & hybrid power solutions

Remote communities and industrial facilities want to reduce their reliance on oil and diesel fuels. Solar power offers a clean alternative that can be integrated into a remote energy mix. Our in-house know-how covers all the phases required to develop hybrid power at remote sites, whether they're communities or mining operations.

Asset management and operational performance

As assets age or change hands, we can help. Our experts manage and assist with operations and maintenance reviews, audits and improvement plans, asset condition assessments, risk-based investment plans, permit compliance, and energy performance evaluations.

About Hatch

Whatever our clients envision, our engineers can design and build. With over six decades of business and technical experience in the mining, energy, and infrastructure sectors, we know your business and understand that your challenges are changing rapidly.

We respond quickly with solutions that are smarter, more efficient, and innovative. We draw upon our 9,000 staff with experience in over 150 countries to challenge the status quo and create positive change for our clients, our employees, and the communities we serve.

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