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ندوة الطاقة السعودية المستدامة
SAUDI SUSTAINABLE ENERGY SYMPOSIUM
حلفاء توطين القيمة • VALUE LOCALIZATION SERIES

Solar Testimonial

Rioglass Solar



Background of the program and company presentation



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Program

- **Start date: December 2006**
- **Location: Asturias, Spain**
- **Energy Capacity:**
Production: 900 MW
Installed + ordered : 2,1 GW
- **Who are the main vendors:**
Rioglass Solar and partner
- **Total investment :**
USD 98 million

International Partner

Facts

- Revenues: 80 million Euro
- Number of employees: 180
- Footprint: 2 plants in Spain, 1 in US and 1 in South Africa

Products & Services

- Solar reflector solutions for CSP and CPV applications

Local Supplier before arrangement

Facts

- Revenues: about 250 million Euro
- Number of employees: about 600
- Footprint: 4 plants in country and various sales offices and distributor network

Products & Services

- Glass for mainly automotive and construction



Scope and content of the localization



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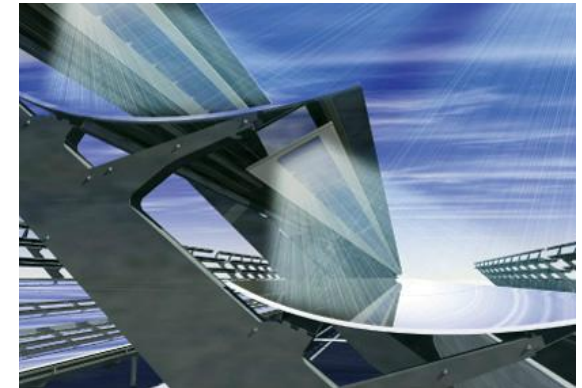
Product Lines

CSP Applications

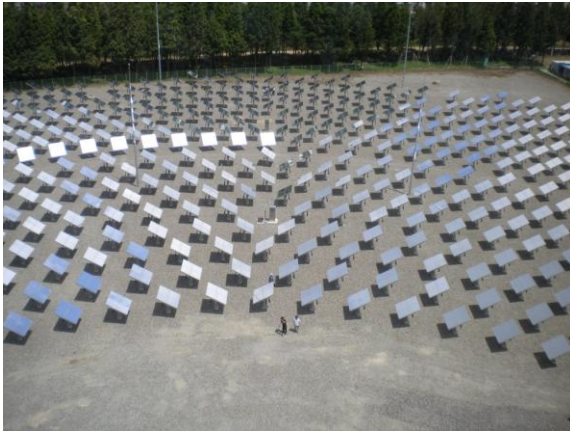


By courtesy of Renovalia

CPV Applications



By courtesy of Supower



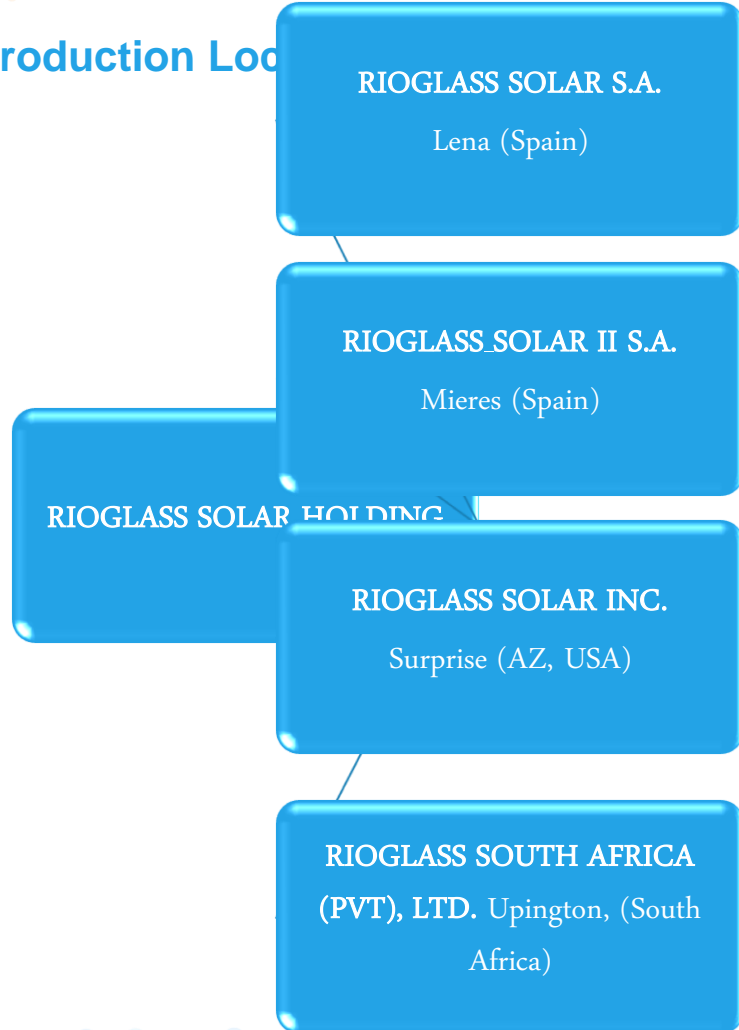


Scope and content of the localization



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Production Locations





Scope and content of the localization



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Product/Service

- Heliostat Mirror Facets for Central Tower CSP Technology
 - Mirror including supporting structure and mounting aids
 - 4,3 m2 mirrors, double curved
 - Concentration of solar light in solar field onto heat target on top of central tower, 50 MW

Localization key facts

- Investment: USD 4,5 million
- Location: South Africa
- Number of employees: 25-30
- Production start date: May 2013
- Annual output (# of units): 270.000 units
- Annual revenues : USD 30 million



Agreement steps



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Identification

One of the partners shareholders is supplier of Rioglass Solar

• Be proactive and contact us

Qualification

Several players showed interest with very different backgrounds. Technical and sales capabilities leading in selection, financial stability a must

• Comply with industry standards
• Comply with int. QA standards

Selection

Technically: knowhow on glass, good sales presence, stable balance sheet and market presence
Non-technical: good fit of corporate culture

• Entrance for suppliers is always the Purchase department. Contact head of Purchase in Spain

Agreement

Both parties took time to set up a good business agreement recognizing each others strengths and interests

It is essential to agree on corrective procedures and quantifiable learning/improvement loops

Performance

Market share: near 50% market share, wide network and quality connections
Alignment of expectations and good support in all fields

• Do what you promise and agree upon
• Identify problems and communicate
• Work through you main contacts (Purchase, Eng. QA)
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Transfer and operations



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Technology Transfer

- Decision to localize
- Plant set up 6 months (start training at int. partner)
- Start up and training on the job, 3 to 6 months
- After care/support!!! (as long as it takes but with correct financial and operational procedures)

Set up

- Describe the actual production inception and the support provided by the international partner

Operations

- Describe the manufacturing and on-going training support provided
- Describe the performance, quality and safety monitoring

- Identify required skills
- Compare corporate training programs and define acceptable program for cooperation
- Define personalized training and implement

- Basis must be good, so use best practices for manufacturing and QA
- Then equipment and training will be implemented well and locked

- People are key so make sure trained people are kept and dissipate their knowledge to others
- Register the specific tasks, procedures and training process and create a learning environment



Operations Key success factors

Competencies Building

- Set goals for long term together with partner and then make small steps for the learning process, preferably by proactive self driven learning
- Where required to perform tasks well, training on the job at International partner or by trainer at location

Nationalization

- Make an overview what is possible from a market point of view , then move to selection and possible realization
- Sometimes new market opportunities pop up, sometimes difficult production/product choices have to be made. Then, a good contract is essential.

- Select and train in agreement of both parties, but take responsibilities for your own people.
- Discuss problems immediately and openly

- Market propositions → technical
Product prerequisites → other
Technical factors → select one or more suppliers or localize production (steps)



Lessons learned



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Key Lessons Learned

- Partnership must be logical and 'natural' for the long turn. In case of doubt don't move ahead. It will damage both partners. Don't let time pressure the process
- Pay elaborate time to clear and transparent procedures and training 'on the job' to get good results and avoid disappointment on both sides
- Put capable persons on the job from both sides that know the mission and have the power to pull it off