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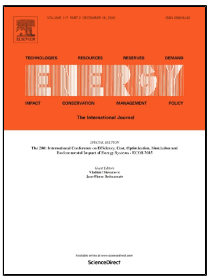

Thermodynamic and economy analysis of solid oxide electrolyser system for syngas production

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PII:	S0360-5442(17)30067-1
DOI:	10.1016/j.energy.2017.01.067
Reference:	EGY 10202
To appear in:	*Energy*
Received Date:	19 March 2016
Revised Date:	09 January 2017
Accepted Date:	11 January 2017

Please cite this article as: Mahrokh Samavati, Massimo Santarelli, Andrew Martin, Vera Nemanova, Thermodynamic and economy analysis of solid oxide electrolyser system for syngas production, *Energy* (2017), doi: 10.1016/j.energy.2017.01.067

- A thermodynamic model for pressurized SOEC system is proposed
- At elevated pressure, total efficiency of the system is lower
- SOEC unit has the highest relative irreversibility in the system
- Electricity prices have the largest impact on the final price of produced syngas.