

## Resource Advisor: a visualisation platform to assess the impact of energy retrofitting measures

PART OF SMART SOLUTION 4: SMART LOCAL ELECTRICITY MANAGEMENT



Figure 1 – Analysis Tools on Resource Advisor

- Tracking of energy consumption in buildings and calculation of carbon and energy savings compared to baseline
- Validation and verification of energy and carbon emission savings due to buildings' performance
- Clear communication and comparison of results across various Energy Efficiency Projects



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Resource Advisor homepage: [www.resourceadvisor.com](http://www.resourceadvisor.com)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 646456. The sole responsibility for the content of this document lies with the author and in no way reflects the views of the European Union.

## What is the solution?

Implementation of an Energy Management System ([Resource Advisor](#)) to allow tracking of energy conservation measurements. The system will allow the configuration of KPIs (Key Performance Indicators) and baselines, i.e. energy demand situation prior to retrofitting measures, enabling the user to calculate any energy demand savings achieved and the evolution of the variables that affect the consumption of buildings.

The Energy Management System will allow the creation of different user profiles with varied levels of access, making it accessible and secure.

## How does it work ?

The Energy Management System will be cloud-based and based on HTML web-programming, making it accessible from any Internet connected device with a web browser . The Energy management System will be stored in a Tier III data centre, where the necessary data will be provided from an open data platform that collects energy-related variables of buildings retrofitted in Barcelona.

The Energy Management System will store and host historical information, while the data will be aggregated, hourly, daily or monthly, and displayed according to the users' needs through an intuitive user interface using dashboards and widgets on the internet. The data will also be available for download. Advanced users will be able to configure different KPIs and baselines in the platform, while general

access users will only be able to view them.

## Integration with other smart solutions

Connectors and APIs (Application Programming Interfaces) for the open data platform will be generated in order to feed the Energy Management System. Since the Resource Advisor allows for different metrics, data points and KPIS for other Smart Solutions could be tracked using the platform.

## Expected Impact

The tool will allow users to track the evolution of the savings achieved by the Energy Conservation measures and ensure their continuity over time. The system will also provide clear data showing the impact of the various energy efficiency measures being implemented and how well they are meeting their targets. Therefore, the visualisation platform will also act as a validation tool.

The ability to provide different levels of user access allows for all stakeholders to have access to the data and achievements of the impact of the energy retrofitting measures of buildings in a transparent manner.

## Potential for replication

Since the Energy Management System is cloud-based and allows for plain text data as well as customized metrics and KPIs, the solution is easily replicable if the appropriate systems are in place to collect data the goals are clearly defined.