



<http://envirohack.herokuapp.com/>

# Solar panels



- ▶ Cut your carbon footprint.
- ▶ Cut your electricity bills.
- ▶ Get paid for the electricity you generate.

# We use more green power



	2000	2009	2010	2011	2012	2013
Nuclear	8.4%	7.2%	6.4%	7.7%	7.3%	7.5%
Wind	0.0%	0.4%	0.4%	0.7%	0.8%	1.2%
Hydro	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%
Bioenergy	0.9%	2.1%	2.3%	2.6%	2.8%	3.3%
Transport fuels	0.0%	0.5%	0.6%	0.6%	0.5%	0.5%
Other	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%
<b>Total</b>	<b>9.4%</b>	<b>104.%</b>	<b>9.8%</b>	<b>11.9%</b>	<b>11.8%</b>	<b>12.9%</b>

Table: Low carbon energy sources

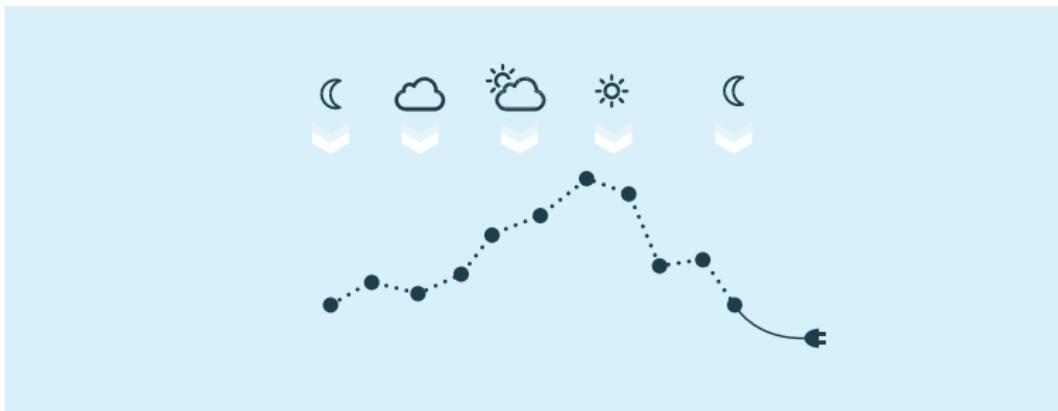
## And a lot of solar panels



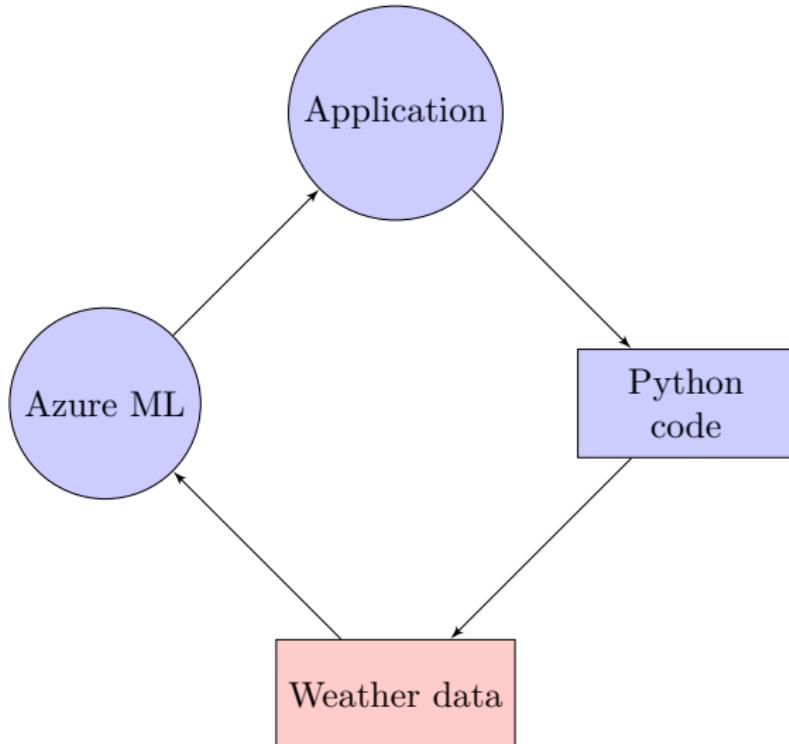
type	2011 Q1	2012 Q1	2013 Q1	2014 Q1
Micro CHP	0.1	0.4	0.5	0.5
Anaerobic Digestion	1.8	14	38	68
Hydro	10	22	35	46
Wind	18	54	133	215
Solar	77	998	1,583	2,056

Table: Cumulative Installed capacity (MW)

Maximise your energy usage  
with our daily energy forecast



# System overview



<http://envirohack.herokuapp.com/>

# Unlocking data



Met Office

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Weather Climate Learning Research Products News Holiday weather Get ready for winter

Industry Multi-media A-Z Transport Climate services Aviation Services Public sector International development Defence services DataPoint

Home > Products > DataPoint

Met Office DataPoint

A large, abstract background image featuring a grid of binary code (0s and 1s) in green and white against a dark blue and black gradient. In the bottom left corner of this image, there is a black rectangular overlay containing the text "Met Office DataPoint". Above the main navigation bar, there are several small, colorful icons representing different data types or services.

# Machine Learning



Microsoft Azure Machine Learning | Home Studio Gallery PREVIEW

Search experiment items

Saved Datasets

- Adult Census Income Bl...
- Airport Codes Dataset
- Automobile price data (...)
- Bike Rental UCI dataset
- Bill Gates RGB Image
- Blood donation data
- Book Reviews from Ama...
- Breast cancer data
- Breast Cancer Features
- Breast Cancer Info
- CRM Appetency Labels ...
- CRM Churn Labels Shared
- CRM Dataset Shared

Training experiment Scoring experiment

ML for Wattage prediction [Scoring ...] In draft

Draft saved at 12:13:21 PM

Properties

training\_data

SUBMITTED BY	Smilie_tom
SIZE	80.7 KB
FORMAT	GenericCSV
CREATED ON	2/28/2015 10:22:

[View dataset](#)

ML for Wattage prediction [Scoring ...]

Score Model

New service output

Project columns

Minutes later

Minutes later

Project columns

training\_data

ML for Wattage prediction [Scoring ...]

New service input

Quick Help

this is cool

+

NEW

VIEW RUN HISTORY

SAVE

DISCARD CHANGES

REFRESH

CANCEL

RUN

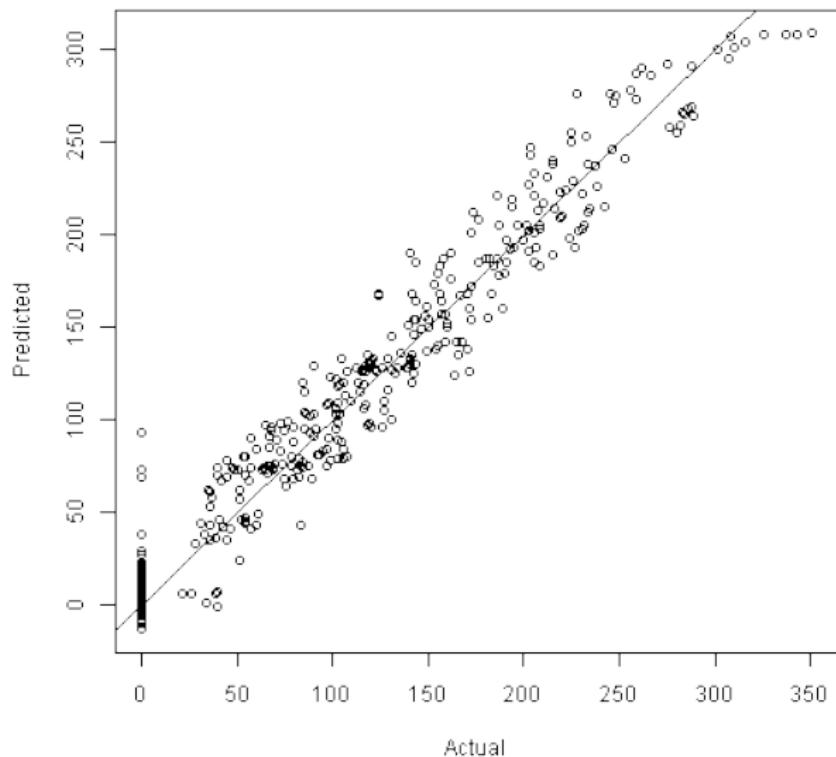
PUBLISH WEB SERVICE

PUBLISH TO GALLERY

CREATE SCORING EXPERIMENT

<http://envirohack.herokuapp.com/>

# Machine Learning model accuracy



# Taking things forward



- ▶ Smart information
- ▶ Smart decisions
- ▶ Smart devices