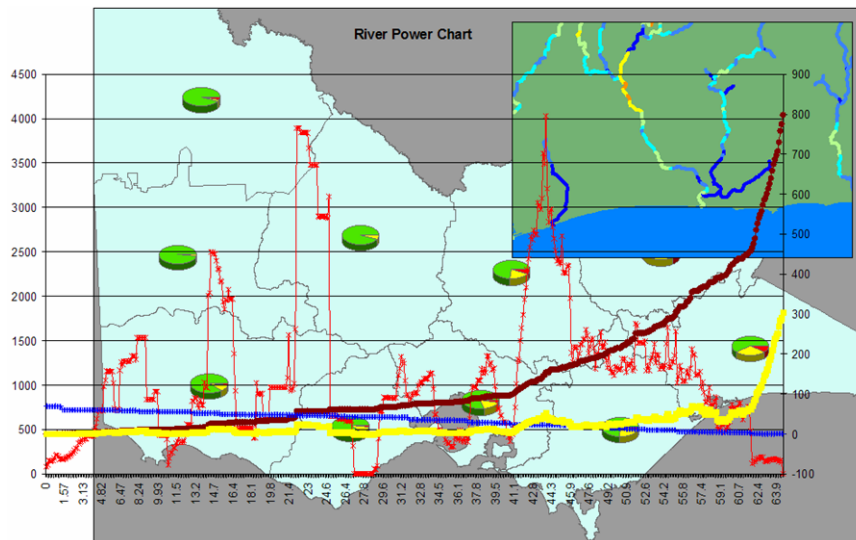


PROJECT DATA

Victorian Mini-Hydro Atlas

CLIENT	Sustainable Energy Authority Victoria
PROJECT LOCATION	Victoria, Australia
DATE OF PROJECT	2004
SERVICES PROVIDED	Atlas of mini-hydro generation potential throughout urban and rural Victoria



At the request of the Sustainable Energy Authority Victoria (SEAV), Hydro Tasmania Consulting developed a mini-hydro atlas of Victoria. The atlas identified the potential of small-scale hydro-electricity generation within existing infrastructure and the theoretical potential across the state (excluding the Murray River).

As a site identification tool, the atlas will be used to locate sites of interest (ie with low cost to yield ratios) and gain a broad level of understanding of specific site properties, (e.g. terrain, flow rates, potential head) before investigation begins.

There were two parts to the project, which included the identification of energy potential in existing infrastructure and the theoretical power potential model.

Identification of energy potential in existing infrastructure involved consolidating a database of dams, power stations, and other assets built around river systems with significant flow. The theoretical power potential model involved computation of a runoff surface for each month and an annual total. This was then converted into a flow accumulation model for the stream/river network in Victoria. Neighbourhood analysis was performed on a digital elevation

LEADERS IN CONSULTABILITY

Head Office
4 Elizabeth Street
Hobart, Tasmania 7000
GPO Box 355, Hobart
Tasmania 7001, Australia
PHONE 1300 360 441
FAX +61 3 6230 5460
EMAIL
consulting@hydro.com.au
Hydro Tasmania is a business
of the Hydro-Electric Corporation
www.hydrotasmaniiconsulting.com.au



Hydro Tasmania
Consulting



PROJECT DATA

model (DEM) to compute an estimated potential head. These datasets were combined to create a series of theoretical power surfaces. The flow accumulation model was compared to measured stream flow recordings.

The datasets produced from this analysis were manipulated to enable their display in different formats. Longitudinal profiles of major rivers were charted to produce power charts, these charts included other variables such as local head, flow, and elevation. Streams were also segmented into sections, which were then aggregated by local government, catchment management authority, and bulk-water authorities, for release to the public.

