

Urban Housing System for Contract Based Works

Introduction

AP State Housing Corporation Ltd (APSHCL) is a Government of Andhra Pradesh agency for construction of houses to the Rural and Urban poor in the State. Currently agency is responsible for implementation of various housing programme initiated by State Government aimed at construction of Pucca houses to Rural/Urban poor to ensure that all the houseless families in the State are provided with Pucca houses.

In order to achieve this objective, APSHCL has taken up the housing program in a massive way by constructing housing colonies & multistoried buildings in urban areas. The AP Government gives subsidy & loan and arranges loan facility from the banks towards unit cost of the house. The APSHCL will take Administrative Sanctions from the Government and award these works to the eligible contractors.

APSHCL proposed to have an e-solution for effective planning, tracking and monitoring of the urban housing program. Accordingly CGG developed and deployed an e-solution "Urban Housing for Contract Based Works" to the requirements of the department.

Urban housing for contract based works

The e-solution facilitates

- Centralized database for effective planning, tracking, monitoring and evaluation of work program.
- Generation of Pay Release Order (PRO) against bills.
- Speedy and transparent manner of release of funds (HO→ Division office) through Corporate Internet Banking (CIB)
- Ensures timely payment to the Executing Agencies/Contractors.
- Decision Support System (DSS) at various levels in the department

Block in a colony is considered as a unit and the parameters are captured against a block. The e-solution has following forms in order to capture the relevant data and the functionality of these forms is as follows.

1. Schemes: Name of the scheme i.e., Indiramma,G+ Ph-I, IHSDP G+ Ph-II etc
2. Unit cost/APSHCL Component: Unit cost of house and APSHCL components like Subsidy & Loan amounts, Bank loan amounts and beneficiary contribution amounts etc.
3. Banks: Name of the banks for bank loan payments and beneficiary contributions.
4. SC/ST Bank Loan Payment: In the selected municipalities in a district, the Bank Loan contribution will be paid by the Government.
5. Colony/Block/Sanctions: It has five sub forms i.e., Colony, Admin.Sanction, Tech.Sanction, Block & Execution.
 - a. Colonies in a Municipality
 - b. Administrative Sanction for the colony
 - c. Technical sanction for the colony
 - d. No. of block in the colony and their pattern (G+2, G+3 etc)
 - e. Details of the contractor
6. Beneficiaries & Bank Loans: It has three sub forms i.e., Beneficiaries, Bank Loan Applications and Bank loan sanctions.
 - a. Beneficiaries in a block
 - b. Applications for Bank loans
 - c. Bank loans sanctioned

7. Beneficiary Payments & Releases: It has four sub forms i.e., Beneficiary contributions, Bank loan releases, Other grants and Total Receipts.
 - a. Beneficiary contribution payments
 - b. Bank loans releases for the beneficiaries
 - c. Other grant released if any
 - d. Total Receipts i.e., amount received through Beneficiary contributions, bank loan releases and other grants.
8. Physical/Financial progress:
 - a. Physical Progress: Physical progress of block i.e., foundation, basement, flooring, roofing etc date of completion of the progress milestone.
 - b. Financial Progress: Bill amounts are to be entered against each block and based on the bill amounts Pay Release Order (PRO) will be generated. The total PRO amount is limited to the sum of APSHCL Subsidy & Loan amounts.
9. PRO Confirmation: Verify and confirm the PRO by Division office before forwarding to the head office for release of payment.
10. Funds Transfer: Based on PRO confirmation, system generates consolidated statement of funds transfer (bank/ office wise) which enables the HO to arrange for transfer of funds to the respective division office bank accounts.
11. Contractor profile: Contractor details of housing blocks.

The application can be accessed at <http://urbanhousing.apcgg.gov.in>

Stake holders:

The department officials of the APSHCL and funding organization like GoAP. GoI etc.

Accessibility:

APSHCL officials at HO/Division offices are privileged to add and update information in the system. As per role based security mechanism, privileges have been assigned to the officials to access the forms.

1. Executive Engineers: All the in-charges of the division offices can access Colony/Block/Sanctions, Beneficiaries& bank loans, Beneficiary Payment & Releases, Physical & financial progress, PRO confirmation and Contractor profile forms.
2. Finance wing of head office: The Managers of the Finance wing of head office can access the Funds transfer form.
3. Program Managers of head office: The program in-charge i.e., Superintending Engineer in the head office can access all the forms except funds transfer form.

Reports:

The system provides following reports with drill down feature (District→ Municipality/Town → Colony → Block) for information, evaluation and decision making at various levels in the organisation.

- Project Sanctions
- Physical progress
- Financial Progress
- Beneficiary Bank Loan
- Funds Transfer – District/Bank wise
- PRO Confirmations

Technology/Tools:

The solution is developed using .NET technologies with SQL Server 2005 and Windows Server 2003 Active Directory for user authentication. The SQL Reporting Services have been used in generation of reports.

Conclusion:

The Urban housing monitoring system provides a Decision Support System (DSS) on the Sanction of works, physical & financial progress, beneficiary bank loan status, transfer of funds etc. The unique feature of the solution is utilization of funds where they are required i.e., funds will be released through Internet banking system after PROs are generated against the bills. The transfer of funds will take place in a speedy and transparent manner.